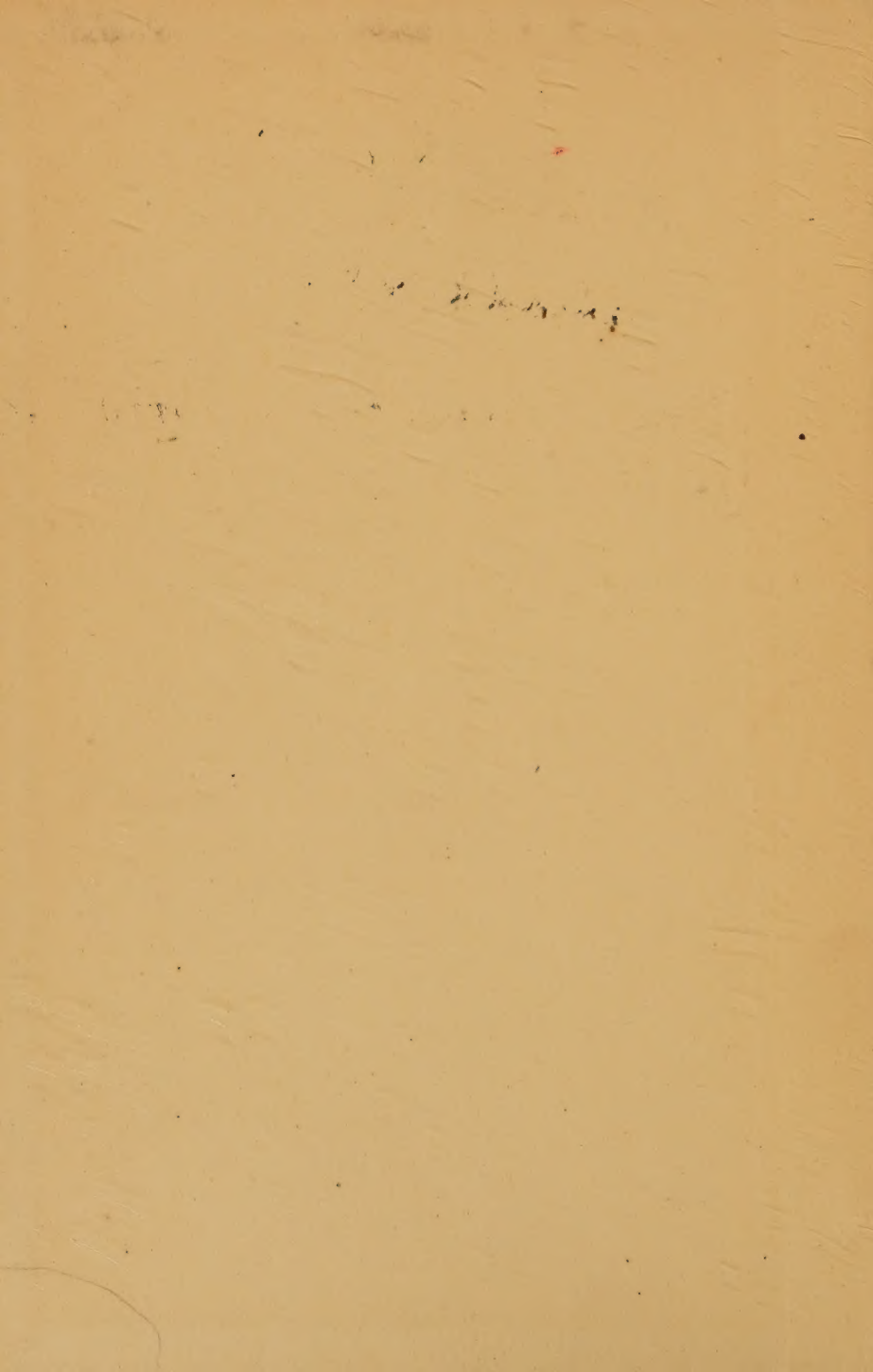




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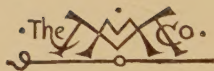
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ELEMENTS OF ECONOMICS



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ELEMENTS OF ECONOMICS

BY

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AUTHOR OF "ECONOMICS REVIEW BOOK"

"ECONOMICS NOTE BOOK"

New York

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TO THE MEMORY
OF
MY MOTHER AND MY WIFE

PREFACE

THE *raison d'être* of this book can be indicated by the following fable: Once upon a time, not long ago, in a city not far distant, a well-known superintendent of schools called to his office three teachers of Economics and asked each the same question, "What are you teaching?"

The first replied, "*I am teaching Economics.*"

The second replied, "*I am teaching five periods a week.*"

The third replied, "*I am teaching 175 students.*"

That is the fable. Rumor says that it was the author of this book who made the third reply. He hopes that he did. At least this is true: throughout the present book, he has tried to take the position of the student. For more than twenty-five years he has taught Economics to secondary school students; if he has not succeeded in obtaining their point of view, it is unfortunate for him, for the fault is his own.

In recent years many textbooks on Economics have appeared for use in secondary schools. This fact in itself is an indication that, up to the present, none is entirely satisfactory. Each new one seeks "to fill a long-felt want."

The true "long-felt want" is that for a textbook with the following characteristics:

1. suitable length,
2. language intelligible to secondary school students,
3. soundness of economic doctrine,
4. pedagogical correctness, and
5. practical usefulness in its teaching of a sane philosophy

of life, so far as that philosophy is related to economic problems.

1. In length, this book is suitable for a course either of one semester or of two semesters.

a. If the curriculum allows but one semester for Economics, this book will be found sufficiently brief for this limited period; the author and several other teachers in his school have used it in manuscript with success as a one-semester text book.

b. If, happily, the curriculum allows a year for Economics, a more detailed and thorough treatment of the various topics is made possible (1) by using Section II of the "Exercises and Problems"; and (2) by requiring reports on the outside readings suggested in Section I and, to a limited extent, on those suggested in Section II, of the "References for Further Study" placed at the end of each chapter.

2. The language of the book is intelligible to secondary school students. The style is designedly conversational rather than professorial. In his classes, the author talks to his students; in his book, he continues to talk, in print, to girls and boys in other classes.

3. The book is sound in Economic doctrine as it is generally accepted by economists. The most critical examination of the text will confirm this statement in the mind of any reader.

4. The book is correct in its pedagogical method.

a. In taking up each new subject, an attempt is made to begin with something already familiar to the students and to build upon that solid foundation. Examples of this procedure will be found in Chapter I — the section on Economics as a Science — and in Chapter XXII — the section on Interest.

b. For pedagogical reasons, the time-honored division into

five departments is retained. It helps the students to classify the material.

c. Paragraphs have been made brief and numerous; long and unbroken passages of print have been carefully avoided.

d. Successive points are numbered.

e. Clear definitions of terms are given.

f. Diagrams and charts are presented in simple form; it is hoped that they may assist the student — not confuse or mystify him.

g. Whenever possible, documents are reproduced as illustrations. Naturally, young people know little of business transactions or of business forms. It is hoped that the presentation of stock certificates, bonds, guaranteed mortgages, notes, checks, bills of exchange, commercial letters of credit, and other forms will add to the reality of class-room discussion. There are almost 200 illustrations consisting of forms, charts, diagrams, and tables.

h. In the selection of examples for illustrative purposes, the author has chosen them within the range of knowledge of the students. He trusts, therefore, that the illustrations may really illustrate.

5. The book, it is hoped, has been made intensely practical, in the sense of being useful. Thrift is discussed at unusual length; the principles of investment are presented simply, and a proper attitude toward "hard-handed" work is sincerely inculcated.

The book is practical for another reason. It is written not from the point of view of the scholar and theorist but from that of the practical business man. It is based upon the assumption that *in business the most important factor is the entrepreneur or business man*. He is at the center of production and he is at the center of distribution; profits are the pivot upon which our economic activities turn.

Accordingly, detailed treatment is accorded to the entrepreneur as a factor both in production and in distribution.

Acknowledgment is gratefully made for permission to use illustrative material supplied by the following sources: Babson's Statistical Organization, *Barron's National Financial Weekly*, *Brooklyn Daily Eagle*, *Commerce Year Book*, 1924, Ginn and Company, Harvard University Committee on Economic Research, National Bureau of Economic Research, National Industrial Conference Board, *New York Herald Tribune*, *Statistical Abstract of the United States*, 1923, University of Chicago Press, and *Wall Street Journal*.

Also to the following organizations: American Exchange-Pacific National Bank, Bank of America, Bowery Savings Bank, Corn Exchange Bank, Lawyers Title and Guaranty Company, National City Bank of New York, Seamen's Bank for Savings, all of New York City, and to the Williamsburgh Savings Bank of Brooklyn, N. Y.

The personal thanks of the author are expressed to the following persons for supplying him with valuable blanks, forms and other material: C. S. Dewey, Assistant Treasurer of the United States; F. W. Burke, Jr., of the National City Bank of New York; Henry R. Chittick, Solicitor for the Lawyers Title and Guaranty Co.; Miss Adeline Leiser, Bowery Savings Bank; Miss Dorothy Madison, Seamen's Bank for Savings; George F. Wilder, manager of the school bank of Erasmus Hall High School; C. L. Murphy of Bonright and Company.

The questions in Group II are obtained from various sources; a few of them are taken from *Five Hundred Questions in Economics*, compiled by the New England History Teachers' Association (D. C. Heath and Company), some are taken from material published by banks, others from Riley's *Economics for Secondary Schools* (Houghton Mifflin Company).

Dr. John L. Tildsley, District Superintendent of Schools, New York City, Mr. F. W. Burke, Jr., of the National City Bank of New York, and two Erasmus Hall colleagues, Miss M. L. Chesley and Dr. E. H. Alexander, have read the entire manuscript. Much of the value it may possess will be due to their constructive criticism. Mr. Walter B. Knowlson, who has used the manuscript in his classes, Mr. George E. Boynton, head of our department, and Dr. J. Herbert Low, principal of our school, have extended friendly advice and encouragement.

For the statements and the views expressed, however, no one but the author is responsible; and for these he assumes entire responsibility.

Professor Charles A. Tuttle, formerly of Amherst College, now of Wesleyan University, was the author's first teacher of Economics; and to him thanks are expressed for implanting in the college boy an interest in those studies which have been to him a life-long delight.

Many standard authorities have been consulted in the preparation of the book and, of these, the works of Bye, Ely, and Seligman have had the most conscious influence on the author.

Finally, it is the author's pleasure to express his gratitude to the hosts of young men and young women at DeWitt Clinton High School and Erasmus Hall High School, to whom it has been his privilege to introduce the fascinating study of Economics. It is they who have enabled the author to write the book — they taught him how to teach the subject.

With the hope that it may play its part in creating many intelligent, loyal young Americans, the *ELEMENTS OF ECONOMICS* is submitted to the youth of the country.

C. R. F.

Erasmus Hall High School,
Brooklyn, N. Y.,
June, 1926.

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A FEW WORDS TO TEACHERS

IN Chapter I, there is included for the use of those teachers who prefer the historical approach to the subject a brief account of the economic stages. Of course, if for any reason you do not like a historical introduction to the study of Economics, you will omit that portion of the book.

The pedagogical plan of the book is easily explained. At the end of each chapter there are Exercises and Problems, and also References for Further Study.

The Exercises and Problems are divided into three groups. Group I consists of questions on the text; Group II consists of questions that involve the principles expounded in the chapter, but that cannot be directly answered from the text; and Group III consists of questions on the subject matter of the chapter selected from examinations given by the Regents of the University of the State of New York.

The Regents' Questions can serve as useful a purpose to the teachers of this textbook as they serve to its author. It is his custom to assign them to his class as a review for final examination. This is easily done, as the questions are arranged according to the content of the various chapters. In review, at least ten questions are assigned for a lesson. Each pupil is required to bring to class *in writing* answers to each question. These answers are read aloud, their defects are pointed out, and a rating is given orally in the class as well as recorded as part of the term's work.

This procedure accomplishes two results: 1. It gives a

thorough review ; 2. It trains the pupils to answer, in writing, questions in Economics.

The References for Further Study placed at the end of each chapter are divided into two groups. Group I contains (A) references to standard secondary school textbooks and (B) references to books, arranged in the order of difficulty, containing illustrative readings appropriate for use in secondary schools. Group II contains (A) references to standard college textbooks and (B) references to source material suitable for the use of teachers and of qualified student.

At the end of the volume will be found a Classified Bibliography containing over three hundred titles arranged under more than twenty subjects. These references are brought up to date and include the publications of the year 1925.

It is suggested that every teacher of Economics own a few college textbooks. Those given in the references are among the best ; the texts by Professors Ely and Seligman are particularly useful because of their excellent bibliographies. It is believed that every teacher of Economics will find it professionally profitable to join the American Economic Association ; the cost is \$5 a year. The *American Economic Review*, published quarterly by the Association, contains the most extensive bibliography extant of current publications on economic subjects. Address : The American Economic Association, Evanston, Ill.

PART I
INTRODUCTION

ELEMENTS OF ECONOMICS

CHAPTER I

INTRODUCTION

ECONOMICS: ITS VALUE IN PRESENT-DAY LIFE

What is economics? — Many definitions have been given, some long and formal, others brief and informal. Professor Richard T. Ely says that “Economics is the science which treats of those social phenomena that are due to the wealth-getting and wealth-using activities of man.” The definition which this author presents to his classes on beginning this new course is simple and terse:

Economics is the scientific study of how men make a living.

Advantages of studying economics. — 1. The study of economics will train you in the kind of thinking you will be called upon to do in daily life. To be sure, it lacks the exactness of mathematical demonstration; but the average person has practical need, also, for another method of thought or reasoning. In life we deal not with certainties but with tendencies and probabilities. In economics we do the same.

2. Economics will help you in your particular work by revealing the relations of your “job” to the “jobs” of those around you. Thus you can perform your work more intelligently if you know those relations.

3. Economics will make you a more useful, because a more intelligent, citizen. Many of our public problems are fundamentally economic in nature. It is most unfortunate that our opinions on these important topics are sometimes partisan rather than intelligent.

4. Finally, economics will give you a store of interesting facts concerning business and industrial activities. It will reveal certain principles or laws, and certain theories which you will find very helpful in understanding the economic conditions all about you.

Economics is a science. — The word *science* is derived from the Latin *scientia* and means knowledge — knowledge which is classified and arranged. On beginning the study of economics you already have some acquaintance with its subject matter; but this acquaintance probably consists largely of scattered ideas and information, of unconnected, unrelated, and isolated facts. Economics seeks to separate true from false ideas, and to integrate and systematize incoherent information.

Economics is a social science. — Doubtless you have already studied science — chemistry or physics, it may be. These are physical sciences, dealing with different aspects of nature. Like them, economics is also a science but, unlike them, it is not a physical science. It deals not with the aspects of nature so much as with the aspects of human nature.

Physiology and psychology are other sciences which may interest you. The first deals with the activities of the human body; the second with the activities of the human mind. Both relate chiefly to the individual person, while economics relates chiefly to groups of persons. Its point of view is not personal but social, and it is therefore one of the social sciences, along with history and sociology. We shall not

study how John Smith, alone, makes a living, but we shall study how the various groups of persons in John Smith's community make a living. It is the wealth-getting and wealth-using activities of society as a whole which we shall study classify, and attempt to arrange in an orderly manner.

What is an economic "law"? — Congress and the state legislatures pass laws, or statutes, to regulate the conduct of American citizens. Public officials administer these laws, and courts compel unruly members of society to "obey the law," using force if necessary. A scientific law is not a rule of conduct enacted by a legislative body. It is a statement of a fact or a series of facts, discovered by impartial and truthful observation. Sir Isaac Newton discovered that all physical bodies tend to fall toward the center of the earth, and we call the statement of that fact the natural "law" of gravitation. Similarly, in the realm of economic life we discover many facts or observed orders of facts, and these we call economic laws. You will find that these frequently relate to the interesting question of cause and effect.

Departments of economics. — We shall begin our classification of economic material by dividing the whole body of facts, laws, and theories into five great subdivisions or departments: 1. Consumption; 2. Production; 3. Exchange; 4. Distribution; 5. Public Finance. This is done to clarify and simplify our study and to secure greater convenience of treatment. The subdivision of economics into its five departments helps us to digest and assimilate its content.

Because we divide the study of these various topics into separate departments, we should not make the mistake of thinking that economic activity, itself, is thus sharply divided into air-tight compartments. It is not. Nor

should we conclude that these divisions are mutually exclusive. The contrary is true. Many single topics could logically be treated in more than one of the departments. The subject of "demand," for example, could be considered when studying consumption or when studying exchange. Moreover, economists are not always in agreement as to the proper place for many particular discussions, as to the proper order of presentation, nor even as to what topics are to be considered.

Formal definition of economics. — In closing this introductory discussion, a more formal and more complete definition of our science may be desirable. As such we present the following: *Economics is the social science which treats of the wants of man and his efforts to secure the commodities and services which are needed to satisfy his wants.*

ECONOMIC HISTORY

What is economic history? — Economic history is not the same as the history of economics. The latter traces the development of the thinking that men have done in the past on economic topics; the former traces the evolution of the methods in which men, from primitive times to the present, have made their living. It is history from the single point of view of the age-long struggle of men to supply their wants for material things and personal services. We know little of prehistoric man; but we can conjecture where we cannot know. Prehistoric man *found* things; civilized man *makes* things. Prehistoric man did as the beasts of the field do; he took what nature provided; he protected himself from the elements by seeking refuge in caves.

Historical stages. — The commonly accepted historical stages, arranged according to the methods by which man has procured his goods, are five in number:

1. The hunting and fishing stage
2. The pastoral or nomadic stage
3. The agricultural stage
4. The handicraft or trades and commerce stage
5. The industrial stage.

It is impossible to give the precise dates of the beginning or end of these periods; they gradually shade and merge into each other; and more than that, in different parts of the world various stages are often contemporaneous. Peoples can be found to-day in each of the five stages.

The hunting and fishing stage. — In this stage, nature is the great factor in production. Man literally lives on nature's bounty, which he simply appropriates. Man does little to subject either animate or inanimate nature to his will; nor has he learned to store up plenty in time of abundance for use in time of dearth. The North American Indians, as found here by the early explorers, were in this economic stage.

There is little coöperation in production; the family is the economic unit, producing practically all it consumes. Exchange of goods has not yet appeared. There are no economic classes and no economic conflicts.

Most property, including land, belongs to the social group or tribe; private property is confined to weapons of war or the chase, household goods, and the reward of labor.

The activities of the hunting tribes lead to the development of such qualities as cunning, endurance, and bodily strength; they do not lead to technical skill nor to the growth of a class of thinkers. Population is necessarily sparse. Each hunter requires fifty thousand acres or seventy-eight square miles for his support. Possibly there were no more Indians in the Americas in 1492 than there are at the present. Now they live, many of them, in reservations;

then they commanded two continents. By way of contrast, in Greater New York, more than 18,000 persons live on every square mile of area. The need felt by primitive tribes for vast territories causes constant warfare. It also accounts for the existence of cannibalism. Such tribes cannot afford to allow their captured enemies to live; they would add to the number of mouths to be fed.

The primitive fishing tribes are more peaceable than the hunting tribes; their population is more dense, as they do not need so much land area. They do not migrate so often in search of new food resources; and they accumulate more capital goods. Their dwellings are of a more permanent character; they construct boats and fishing implements. Such tribes can now be found in the Arctic regions.

The pastoral stage. — Man takes a long step forward when he begins to *raise* things and no longer depends solely on *finding* them. Curiously, he does not attempt to control inanimate nature; he begins by raising animals and plants — animals first. Man no longer relies on killing animals; he tames and breeds them; he pastures animals for food and clothing, but he still lets his flocks *find* their food. Man no longer wanders for his own food, but for that of his flocks. Cities are still impossible. Large areas of land are still required in the pastoral stage — one square mile for every two to five persons. Wars continue and its victims are usually slaughtered.

One important change occurs. Men who have flocks for food cease to eat human flesh. In time it is recognized that captives can be used to care for the flocks, and cannibalism and slaughter give way to slavery. In the long view, slavery, so abhorrent to us, once marked a stage in the upward struggle of mankind.

In this stage, there are frequent migrations of entire peoples, either because of the increase in numbers or because of the exhaustion of former feeding grounds. Because occupancy of any given territory by a tribe is only temporary, land ownership in the modern sense does not exist. A tribe may claim authority over a district by right of possession, and it may defeat a rival claim of another tribe by war; but individual ownership of land has not yet arisen. Private property in other things is not uncommon. Wealth consists largely of flocks, gold, silver, precious stones, and other showy ornaments, easily transportable from place to place. There are sharp distinctions between rich and poor, wealth and poverty. Because of lack of variety in the production of goods there is little or no exchange of goods or commerce. Such exchange as does exist is by means of barter or the direct trading of goods for goods.

The agricultural stage. — In the preceding stage man learned how to manage animals; an immense step forward is now taken when he begins to cultivate plants. For the procurement of food, agriculture is now added to the keeping of flocks and herds and to the chase. This brings greater variety of food and man ceases his wanderings.

Population becomes much denser. It is estimated that in the agricultural stage man requires only one sixth of the area needed in the pastoral stage. With a denser population living permanently in fixed abodes, new relations among men spring up, new work, new arts, and the possibility of civilization. The modern nation here has its origin.

Here, too, is where the private ownership of land begins. Successful cultivation of the soil requires personal care and attention, and division of land results.

One of the most important results produced by the agricultural stage is the growth of slavery. As we learned,

slavery had its rise in the pastoral stage, but in the agricultural stage it becomes a fundamental institution. Primitive men do not like to work, and they gladly spare the lives of prisoners with the purpose of making them till the soil.

Commerce does not increase rapidly, as the paucity in variety of products persists. Trade is mainly in articles

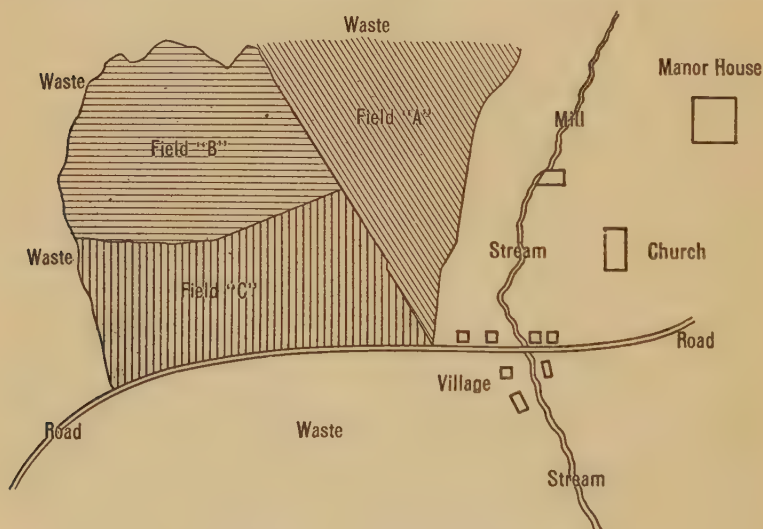


FIGURE 1. AN ENGLISH MANOR

of luxury. This doubtless accounts for the hostility against commerce exhibited by the ancient philosophers and the early Church fathers.

Men's ideas begin to enlarge. We can trace this growth in their laws and customs. The Mosaic code was framed for a people in the pastoral and agricultural stages; in it we find a great increase of duties and restrictions on personal conduct. With permanence of residence, the state comes into being, administering justice, controlling and protecting its citizens. When men live close together, and accumulate

property, there must be rules and regulations and machinery to enforce them.

The agricultural stage endured for centuries among many peoples. In Western Europe it did not emerge into a higher form until cities began to spring up. It has not wholly disappeared to-day.

An English manor. — England was in the agricultural stage when the great manors came into existence. William the Conqueror, you will recall, seized Britain in 1066. He granted his followers large estates on condition of their making certain payments and rendering various military services. These lords of the manors granted portions of their estates to dependents on similar terms. Under this military organization of feudalism, the English village of the Middle Ages developed into a self-supporting community.

The center of the village was the lord's manor house, sometimes called the "great house," the principal room of which was the hall, which served as the lord's court of justice, dining room, and general living room of his household. It also contained a kitchen, a pantry, a sewing room, a brewery, a bakehouse, a laundry, and a chapel. The lord had a large personal retinue, including the sheriffs, bailiffs, and stewards, to administer his estate, in addition to squires, pages, grooms, butlers, musicians, and other groups of attendants.

The *desmesne* belonged exclusively to the lord and was usually scattered among the common fields, illustrated in the diagram above. The tillable portion of the estate constituted the common or open fields. These were cultivated by independent farmers or by dependents, some of whom carried on various trades in the village, serving as blacksmiths, barbers, cobblers, and millers.

In those days, people had but one name, the given name, so John might be known, from his occupation, as John, the

smith, and his descendants took as a last name that of Smith. Thus arose many of our well-known English names.

Rotation of crops was commonly secured by what is known as the three-field system, illustrated in the diagram. The fertile portion of the manor was divided into three fields of approximately the same size. Each field lay fallow once in three years, after bearing wheat or rye the first year, and a spring crop, such as corn, barley, oats, or beans the second year. Various strips assigned to an individual farmer were scattered over the three fields. After harvest, all villagers were free to graze their cattle over the stubble of the arable land. The proper seasons for plowing, sowing, and harvesting were appointed by a special official, called the reeve. After the hay was cut and gathered from the uncultivated meadows, the cattle of the villagers were turned into the meadows to graze. Marshes, woods, and neglected land constituted the *waste* where the village herdsmen took charge of cattle, horses, sheep, and swine.

The handicraft stage. — This is, literally, the stage of manufacturing (*manus*, hand, and *facio*, to make). As we generally use the word to mean making with power-driven machinery, the more accurately descriptive word, handicraft, is chosen. Labor and capital goods, the fruit of past labor used for further production, become more important than ever. By his skill man transforms the raw material of nature; he learns to weave fabrics and to fashion wood and metal. One result is simple division of laborers into separate occupations, such as blacksmiths, shoemakers, and weavers. When men specialize in occupations, they produce not for their own consumption but with the intention of exchanging the product of their labor for the product of other workers' labor. Hence, commerce or trade goes hand in hand with occupational production.

Commerce creates classes of tradesmen, men who give their time to exchanging the goods that other men make. The producers are willing to pay for this service as it relieves them of the necessity of disposing of their products. They thus save time which they can devote to direct production. Different countries, also, find it advantageous to exchange their respective products; naturally, in early days, this international trade flourishes most where there is water communication between them.

The exchanges are accomplished by barter, or the direct trading of goods for goods. But this method has many drawbacks, notably the necessity for each party to an exchange to have what the other desires and to desire what the other has.

It is found, in time, that certain things are generally more acceptable in exchange than others, and that some one thing or some few things are generally most acceptable. These generally acceptable goods have varied from time to time and from place to place. They have served as media of exchange, or what to-day we know as money.

In different ages many commodities have served the purpose of money. Tin was used in ancient Syracuse and Britain; iron in Sparta; cattle in Rome and Germany; platinum in Russia; lead in Burmah; nails in Scotland; silk in China; cubes of pressed tea in Tartary; salt in Abyssinia; slaves among the Anglo-Saxons; tobacco in early Virginia; codfish in Newfoundland; bullets and wampum in Massachusetts; logwood in Campeachy; sugar in the West Indies; and soap in Mexico. Money of leather and wood was in circulation in the early days of Rome. In 1612 money of brass was coined in America. In Tennessee, between 1790 and 1798, land was used as a kind of currency; and Prescott states that among the ancient Aztecs

the money in use consisted of transparent quills filled with gold dust, bits of tin cut in the form of a T, and of bags of cocoa. Shell money is still in use among a few African tribes.

Another feature of this stage is the rise and growth of cities. In the agricultural stage, villages grow up but they are not populous. Manufactures tend to bring larger bodies of men together. If men are to live by their trades and to engage in exchange, they must live in close proximity. Wherever manufactures spring up, cities develop, and thus they are often situated on the coast or along rivers.

As men became separated into trades, guilds were organized for their control and management. There were master-workmen — the owners and “bosses” — journeymen workmen in the employ of the master-workmen, and apprentices learning the trade during an apprenticeship of seven years. Before an apprentice could qualify as a journeyman workman, he must present his masterpiece, a perfect specimen of his craft accomplished by himself. The shop was usually in the home of the master-workman. There were close personal relations between him and his employees. They knew him and the details of his business. If an apprentice was a likely young man, he enjoyed every prospect of marrying his employer's daughter.

The cities were eventually the cause of the downfall of feudalism. Discontented serfs fled to the cities. Many trading cities had won or bought charters from the feudal lords, which made them free cities. Those who fled to them were accepted and made free.

The industrial stage. — This is the stage in which we now live. The rest of the volume will be devoted to a detailed study of it. Professor Ely divides this stage into three phases. The earliest — 1760 to 1830 — was characterized

by the development of machine industry and the application to it of steam power. The second phase — 1830 to 1870 — was characterized by the development of steam-power transportation. The third period — 1870 to the present — is characterized by “concentration and integration of industry under a rapidly spreading corporate organization.”

Concentration describes the tendency towards “big business” units, as illustrated in the United States Steel Corporation, sometimes called the “billion-dollar trust,” and the American Telephone and Telegraph Company with an authorized capital stock of one and a half billions. *Integration* describes the tendency to bring together under one management all of the processes in the production of an article, such as control of the sources of raw material, its transportation to the factories, as well as all of the processes of manufacture. Thus Henry Ford owns iron mines, railroads, smelting plants as well as factories. *Corporative organization* refers to the organization of business into corporations.

Meaning of “Industrial Revolution.” — The industrial stage began in England. The transition there from the handicraft to the industrial stage was so sudden and so violent, it was accompanied by so much suffering, and the changes wrought by it were so momentous that the transition is termed the Industrial Revolution. Progress from primitive conditions through the various stages had hitherto been gradual, covering long periods of time; it had been an evolution when compared with these revolutionary changes.

The Industrial Revolution was wrought by a series of inventions and discoveries, beginning with the fly shuttle in 1738 and including the spinning jenny, the spinning mule, the power loom, the cotton gin, the steam engine, the steamboat, the locomotive, railroads and canals, and, in 1832, the electric telegraph.

Important effects of the Industrial Revolution. — The effects of these inventions and discoveries were many, important, and far-reaching.

1. Markets were vastly enlarged. They ceased to be merely local, and became national, or even world markets in some instances. For example, the price of wheat in Liverpool or Calcutta affects the price in this country.

2. Industries became centralized in those localities where they could be carried on to the best advantage. Examples are flour mills in Minneapolis, meat packing in Chicago, banking and insurance in New York.

3. Concentration of population in cities was accelerated, bringing difficult social, economic, and political problems.

4. Because power-driven machinery was expensive, workmen, through lack of capital, were unable to provide the new machines; enterprising business men bought the high-priced machinery, employed workmen, and soon outstripped those who clung to the methods of the outgrown *domestic system*. The *factory system* followed. The workers are now separated from their tools; the owners form a distinct class with interests apparently hostile to those of the workers; personal relationships are impossible between the owners, on the one hand, especially between the stockholders of corporations, and the great body of employees, on the other, and industrial conflicts arise.

5. The present wage system came into existence, and under it the only financial interest labor has in an enterprise consists of the wage that it receives; the joint product of the coöperation of labor and capital belongs to one party only, namely to the capitalist.

6. Under the old guild system of production for local markets, prices were largely regulated by custom or by law. Customary prices are prices that have been charged so long

that "the memory of man runneth not to the contrary"; if a guild happened to rule a city its regulations had the effect of law, consequently the prices fixed by it had legal sanction.

7. Competition became more and more vigorous. The new competition stimulated energy, enterprise, and invention.

8. Larger and larger business units developed until they became powerful agencies not only in the economic world but also in our political life.

9. Complex division of labor into minute subdivision of industrial processes was pushed to the limit.

10. All of these changes resulted in increased output at reduced cost per unit.

11. The handicraft stage had developed money as a medium of exchange; the industrial stage developed credit economy through banks and various new forms of credit. In 1782 there was one bank in the United States; to-day there are over 30,000 banking institutions.

12. Another important result of the changed conditions of the industrial stage is the enhanced importance of transportation. New methods of transportation and communication have been devised. To-day, the world is one in a sense and to a degree it has never been before; our fellow-men at the antipodes are now our neighbors.

13. Furthermore, in this stage a new and troublesome phenomenon appears in business cycles. Business seems to revolve in cycles of (1) business recovery, (2) business prosperity, (3) financial strain, (4) crisis, and (5) depression. Our present economic system is so delicately balanced and so complex, compared with any that preceded it, that if something goes wrong in one part it may cause trouble in many other parts.

Evolution of productive power. — There is still another point of view from which to study the economic evolution of society, namely that of the kind of natural power predominantly utilized by man in production.

1. Early man used water transportation; for hundreds of years sail boats constituted the most popular method for transporting freight and for visiting “foreign parts” — the power was supplied by the wind; and in the windmill, wind turned simple forms of machinery.

2. Next, the water of rapid streams was harnessed to operate machines. At the fall line of rivers and above it, dams were constructed and the water was thereby forced into canals or sluiceways; literally, the falling water turned the water wheel.

These water wheels were (a) “over-shot,” in which the water struck the wheel on the top and shot over it; (b) “under-shot,” in which the water struck the lower part of the wheel and passed under it; (c) “breast,” in which the water struck the wheel about in the middle; and in comparatively recent years (d) the “turbine,” in which the wheel is placed flat with the ground with its spokes so arranged that the water will cause it to revolve. These wheels are all connected by gears and shafts with the machinery in the mill. In this case the power is supplied by water.

3. The next step was taken after the invention of the steam engine. The expansive power of steam was utilized in the steam engine to run machinery; in the steamboat to move the propeller; to turn the paddle wheel or the screw, and in the locomotive to pull a train of cars. The power was supplied by steam.

4. This is sometimes called the age of electricity. Wonderful developments have followed from the utilization of electricity transmitted by wire and in dry and wet storage

batteries. Water power and coal generate electricity by turning a dynamo; the power thus generated is used in countless different ways. It has given us the telegraph, the telephone, and now the radio. For all practical purposes the world is growing smaller every day. Power is now supplied by electricity.

5. This might also well be called the age of chemistry. Chemistry has taught us how to utilize by a spark of electricity the energy hidden in gasoline and other explosive gases. Power now comes from gases. To-day we use all of these forms of power — wind, water, steam, electricity, and gas. When we take up a new form of power, we do not abandon those we already employ; we simply add the new.

EXERCISES AND PROBLEMS

I

1. Give three definitions of Economics.
2. Give four advantages of studying Economics.
3. What is meant by calling Economics a science?
4. As a social science how does Economics differ from Chemistry? From Psychology?
5. What is an economic law?
6. Name five departments of Economics.
7. Why is Economics divided into "departments"?
8. What is the difference between Economic history and the history of Economics?
9. How did prehistoric man make his living?
10. Name the five economic stages.
11. How do hunting and fishing tribes differ?
12. What economic changes occur in the pastoral stage?
13. What is the main difference between the pastoral and the agricultural stages? What important results flow from this difference?

14. What are the important features of the handicraft stage?
15. What great economic institutions grow out of trade and commerce?
16. Describe a medieval manor.
17. Describe the medieval guilds.
18. Give dates and characteristics of the three phases of the industrial stage.
19. How does the factory system differ from the domestic system?
20. What is the wage system?
21. Enumerate the ten most important effects of the Industrial Revolution.
22. What is competition?
23. What was the effect of enlarged markets on competition?
24. Name five different kinds of power used by man for service in production.

II

1. Before you studied this chapter, with what topics did you think Economics dealt?
2. In what ways did the Industrial Revolution cause suffering?
3. Why were the first large trading cities located on the coast or on rivers?
4. In 1899 Professor Simon N. Patton wrote *The Development of English Thought; A Study in the Economic Interpretation of History*; in 1902 Professor Seligman published his *Economic Interpretation of History*. What would you expect to find in a book with either of these titles?
5. Name several economic causes of the Great War.
6. When was the American Telephone and Telegraph Company incorporated? What is its capitalization? How many employees has it? How many stockholders? Is it a holding company or an operating company? Does it give any evidence of concentration? Of integration?

III

1. Give an account of the Industrial Revolution with reference to (a) the inventions that brought it about; (b) four of its effects. Mention two recent inventions or new processes which show that it is still under way.

2. Explain what is meant by the Industrial Revolution and show its relation to class consciousness.

3. Give a detailed account of one great invention.

4. Discuss the following: "The introduction of the factory system cheapened products, but debased labor."

5. In the factory system what is the interest of (a) the owner, (b) the laborer, (c) the consumer?

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PART II

DEPARTMENT OF CONSUMPTION

CHAPTER II.

CONSUMPTION: THE UTILIZATION OF WEALTH

INTRODUCTION

Why people work. — Every week-day morning, during term time, you and I reluctantly get up very early, do we not? We do it because we must be at school on time. On our way to school, we always notice many people hurrying to and fro, but mainly in one grand throng moving in the same general direction. Why, at that time of day, are they all going in the same direction? Whither are they bound? Men and women are on the way to their work. In the late afternoon, the tide of travel is in the opposite direction, and then men and women are going home from their work. Truly, this is a work-a-day world.

Why this apparently universal employment of human beings? Do men like it? Is it by their choice that workers going to and from their daily task heavily overtax every means of transportation? We have already learned that primitive man disliked anything like work. Are his descendants different, or have we an illustration of the adage "like father, like son"?

There are different motives which inspire the various workers.

1. No doubt some can reëcho the sad story in *The Song of the Shirt* by Thomas Hood:

Work — work — work
From weary chime to chime !
Work — work — work
As prisoners work for crime !
Band and gusset and seam,
Seam and gusset and band,
Till the heart is sick, and the pain benumbed —
As well as the weary hand.

This poor person worked to keep body and soul together ; she worked to obtain the real necessities of life.

2. Most of the workers in our favored land are assured of the necessities of life ; they are not struggling for existence ; they are striving for the comforts and luxuries which make life broader and more attractive. We have mentioned necessities, comforts, and luxuries. The terms are relative and personal in significance. Primary necessities supply the physical requirements of food, shelter, and clothing ; continued existence is dependent upon the satisfaction of these vital wants.

But, beyond the primary necessities, our wants are relative to our social and economic position in life, to our educational advantages, and to our personal tastes. A fur coat would be a luxury to a young woman whose husband's income is \$100 per month ; it would be a comfort to one whose husband makes \$300 per month ; while it would be considered a necessity by a woman enjoying in her own right an income of \$100,000 a year.

3. There are some workers, busily employed during long hours, who are not working to supply necessities, comforts, or luxuries. They have accumulated a competence, and could " retire " from active business if they chose, but they do not so choose. They work in order to keep their minds occupied. They are usually men without intellectual

resources — literature, art, and travel do not appeal to them. They work because they would be unhappy if they did not work.

4. Other men work to obtain the position and the power that accompany large wealth; they enjoy the prominence and superior prestige that their possessions give them.

5. And there are still others, men of very large means sometimes, who work many hours a day for long periods, inspired, at least partially, by the desire to be of service to society. Sincere workers of this class have reached the high moral ground where they can say with Rudyard Kipling:

And no one shall work for money, and no one shall work for fame,
But each for the joy of the working, and each in his separate star
Shall draw the Thing as he sees It for the God of Things as they
are.

Certainly this much is true: The normal human being will never find happiness in this world unless he works. Happiness is not a pot of gold at the end of the rainbow. It is the joy of achievement in congenial employment. It must be so, for it is thus that the individual fulfills the law of life in serving to his highest capacity the needs of his fellow-men.

Definition of consumption. — Men work, as we have already observed, to supply their wants. In Economics, *the study of wants and their satisfaction is called consumption*. A shorter definition often given is this: *Consumption is the destruction of utilities*.

In saying that consumption is destruction, we are careful to note precisely what is destroyed. We have not said that consumption is the destruction of matter. Man cannot create matter, nor can he destroy it. Philosophers disagreed for many hundreds of years as to what matter really is. That dispute has been transferred to the scientists who are

busily investigating the nature of matter. It used to be said that a molecule was the smallest particle of matter; then the molecule was divided into atoms; and now the atom itself has been split up into a positive nucleus with electrons circulating around it. Apparently, in the opinion of present-day scientists, matter consists of electricity. So it is not matter which is destroyed in consumption, but its utility or usefulness.

Kinds of consumption. — Economists differentiate three kinds of consumption.

1. The first and most important type of consumption is *direct or final consumption* resulting in the *direct satisfaction of a human want*. You are hungry and eat an apple. You are cold and wear a sweater, which you find worn out at the end of the season. The books which you read in the library become worn out sooner or later and have to be replaced. In these instances, it is clear that the apple, the sweater, and the books have been consumed in the direct satisfaction of human wants.

2. A second kind of consumption is *productive consumption*, in which *commodities are consumed in the creation of other commodities*. For an example, let us suppose that your father is a business man, engaged in making clothing. His "raw material" is cloth, which he purchases by the bolt in large quantities. This he works up and fashions into suits, which constitute his "finished product." For the purpose of producing suits he is said to "consume" the cloth.

3. The third type of consumption is *waste consumption*. Let us illustrate it in the following manner. Last evening, when you were at dinner, you heard the shrill calliope of a fire-engine as it sped past your dwelling. You eagerly followed the crowd, "went to the fire," and watched the fire

destroy a factory building. The destruction of the factory resulted neither in the *direct satisfaction of a human want nor in the creation of another finished product*. It was an example of *waste consumption*.

WANTS AND THEIR SATISFACTION

The origin of wants. — Human wants are responsible for much in this world. If we did not have wants, there would be no consumption of goods; if there were no consumption of goods, there would be no production or exchange of goods; and no problems would arise over the share of income which different individuals should receive. There would be no “struggle for existence”; no failures and no successes; no joys and no sorrows. But, do you think you would like that kind of existence? Would it not be uninteresting and unprofitable? For better or for worse, every human being is a “bundle of wants.”

These wants arise from different sources.

1. *Nature implants in us our primary wants.* We feel we *must* have food to sustain life, shelter to protect us from the weather, and clothing to keep us warm. These are our primary wants.

2. *Our relationship to other members of society is a second source of wants* — a very important one. None of us lives alone in solitary grandeur. We are associated with other human beings in many ways and these associations give rise to many kinds of wants or wishes. It is natural for us to desire those things that will honestly win for us recognition, appreciation, and companionship; that will enable us to imitate and to excel in desirable fields, and that will gratify a normal degree of pride. All these social motives create many wishes which are justifiable up to a certain

point, and beyond this point these wishes become evidences of selfishness, vanity, and extravagance.

3. *Advertising is a third cause of wants*, as it stimulates in the public the desire for many things for which it may not have been conscious of any want before. *The aim of advertising is "to increase or to create demand for a type of product or service."* We are bombarded on every side by striking reminders of the superior quality of a certain kind of chewing gum; we are urged to sleep only on a certain kind of mattress; it is suggested to us that to smoke a certain kind of cigarette, it is worth our while to "walk a mile." Just how far does all of this increase or create demand? It would be difficult to say; we are often made conscious of many wants through judicious advertising. Advertising takes many forms. One economist thus refers to a single medium of advertising: "The wide circulation of magazines has made common to even remote places the knowledge about new offerings in the consumers' goods markets formerly restricted to the large centers of population."

Want and demand. — Our wants clamor for satisfaction. The spring which sustains every economic activity is human want. But there is a difference between want and demand. In the market place there may be many persons who have wants but who have no reasonable likelihood of satisfying them. Their desires are largely ineffective. The small boy, trudging along with his elders, wants nearly everything he sees. But the owners of the various articles do not part with them simply because the lad "wants" them. *Demand is desire, or want, plus the ability and willingness to pay.* The markets of the business world are made up of buyers, who both can and will purchase; and of sellers, who both can and will sell the articles offered. While not every

want is an instance of demand, every demand is an instance of want.

Goods and services. — So far we have spoken of concrete or physical things — those that have substance, size, and shape. These are called *commodities* or *goods*.

It may happen, however, that what is desired is not a concrete object but a service. That is, you may wish the advice of a physician, the assistance of a tutor, or transportation by railway to another city. There are thus two classes of agencies that satisfy our wants: *commodities* and *services*.

It should be remarked in passing that some economists include both these agencies in the term *wealth*, and other economists include only commodities. For our purposes it seems more simple and conducive to clear thinking to follow the latter group and to confine the use of the term *wealth* to commodities, alone. Having made this decision, it is important that we use care always to be consistent in our use of words.

Classes of goods or commodities. — As we learned above, a concrete thing which satisfies a human want is called a good. A good may be so abundant as to be free to all, like sun, air, and climate. It is independent of the market and is not subject to purchase or sale. Such a good is a *free good*, and lies outside the realm of our study of Economics.

A good may be so limited or scarce, in comparison with the demand for it, that something must be given in exchange for it. Such a good is subject to purchase and sale and constitutes one of the items of trade or commerce. Such a good is an *economic good* or *commodity*, and economic goods considered in the aggregate are known as *wealth*.

Classes of economic goods. — Goods or commodities are durable if they last a long time, such as a dwelling, a watch,

or a pair of shoes. They are *perishable* if they last only a brief time, such as fruit, flowers, vegetables, and meat.

Consumers' goods are commodities in the hands of consumers. Your father's automobile, the furniture in your home, or the gloves you are wearing, are all examples of consumers' goods. *Producers' goods* are commodities in the hands of producers. They may be in the process of production or they may constitute a stock of finished goods ready for sale. In a furniture factory you will find "raw material" in all stages of manufacture from lumber to finished chairs, tables, and bookcases.

Utility. — We have learned that wants may be satisfied by physical things or by services. You want protection from sun and wind and you procure a hat; or you want to pass an examination and you hire the services of a tutor. The thing, itself, which satisfies want is popularly called a *utility*. In Economics it is the power or capacity to satisfy want that is known as *utility* or *usefulness*. This abstract notion of *utility* or *usefulness* has many subdivisions, which we shall now study.

1. The usefulness inherent in raw material — that which is given by nature — is called *elementary utility*. For instance, iron ore can be made into pig iron, wrought iron, cast iron, or steel. All other kinds of utility are based on elementary utility.

2. *Form utility* is that usefulness added to elementary utility by a change in form. It is present when matter has been transformed in shape or composition, or when it has been changed from a raw state into a more usable form. More persons are probably engaged in this type of production, which gives form utility, than in any other.

We may divide the industries which produce form utility into three great groups:

a. There are the *extractive industries*, those in which man directly appropriates the gifts of nature without adding anything. He takes from nature without making a return. Examples are hunting, fishing, pasturing of flocks, lumbering, and mining. The industry of primitive peoples was entirely of this type. Our American Indians lived mainly by hunting.

b. As civilization advances, the extractive industries become less important, and the *genetic industries* appear. These relate to things that grow, and include such industries as agriculture, forestry, and stock breeding. Formerly, agriculture and forestry were classed as extractive industries, but man cultivates the soil and cares for the forests. The genetic industries do not exhaust the resources of nature as do the extractive.

c. *Manufactures* are a third type of industry, and include all industries devoted to working up raw material into finished products, such as iron, steel, textile, clothing, automobile, and many similar industries.

3. *Place utility* is the usefulness added by a change of place.

a. *Transportation* agencies, such as railroads, ocean steamships, inland water lines, street railway systems, trucking and delivery service, and all other means of transportation create place utility. By means of transportation, the citizens of any locality can enjoy commodities from every part of the world.

b. *Arbitraging* also creates place utility. It consists of the simultaneous buying and selling of the same commodity in two different markets in order to profit by the difference in price. If wheat is selling for a dollar in Chicago and for more than that in New York, a dealer can make money by buying in Chicago and selling in New York, providing the

difference is great enough to more than pay the cost of shipping the wheat from Chicago to New York. Arbitrage transactions are common in the organized produce exchanges, the stock exchanges, and in foreign exchange transactions.

4. *Possession* utility is the usefulness added by a change or transfer of ownership. It used to be thought that when goods were exchanged, one party must gain and the other lose. On the contrary, *every fair exchange is advantageous to both parties*. If I exchange a five-dollar bill at a haberdashery for a hat, I do so because I prefer the hat to anything else I could purchase for five dollars. The dealer prefers the five dollars to the hat. We both gain by the transfer of ownership. *Consumer's surplus* is excess of satisfaction over cost. I should not have exchanged five dollars for the hat unless I preferred the hat to the five dollars; the excess of satisfaction over cost that I experience in owning the hat rather than the five dollars is known as consumer's surplus.

a. Merchandising industries create possession utility. They include dealers and middlemen of all kinds, wholesalers and retailers, both handlers of raw materials and of finished goods.

b. Banking institutions afford valuable aid in the process of exchange and thus help in creating possession utility.

c. Advertising and salesmanship are agencies in the creation of possession utility, in so far as they are educative, informative, and really helpful.

5. *Time* utility is the usefulness added by time. Old wine, like old violins, is prized more than new. Ice is a free good in winter but, if kept until summer, it has greater usefulness. Storage industries, such as grain elevators and cold storage plants, add this kind of utility.

6. *Service* utility is the usefulness arising from all forms of professional and personal service. (a) The learned professions dispense this type of utility. Actors, artists, authors, law-

yers, musicians, philosophers, physicians, preachers, scientists, teachers, give us some of the most highly prized of life's treasures. (b) The personal service group renders a great service in making it possible for other classes to devote themselves to their callings — including bootblacks, butlers, chambermaids, chauffeurs, cooks, hairdressers, laundresses, maids, valets, and waitresses — all perform personal services. The officers of government, from president to policeman, are performing services for society.

The various ways of getting a living are shown by Professor T. N. Carver in the following outline: ¹

TABLE 1
WAYS OF GETTING A LIVING

WAYS OF GETTING A LIVING	I. Uneconomical	1. Destructive	War	
			Piracy	
			Plunder	
			Swindling	
			Counterfeiting	
		2. Neutral	Adulteration of goods	
	Monopolizing			
	II. Economical		1. Primary industries	Marrying wealth
				Inheriting wealth
				Benefiting through a rise in land values
		Farming		
		Mining		
2. Secondary industries		Hunting		
	Fishing			
	Lumbering			
	Manufacturing			
	Transporting			
3. Personal or professional service	Storing			
	Merchandising			
	Healing			
	Teaching			
	Inspiring			
	Governing			
	Amusing			

¹ *Principles of Rural Economics*, p. xx (Courtesy of Ginn and Company).

THE SIX LAWS OF CONSUMPTION

The laws of consumption. — We have already seen that a scientific law is not like a statute passed by a legislative

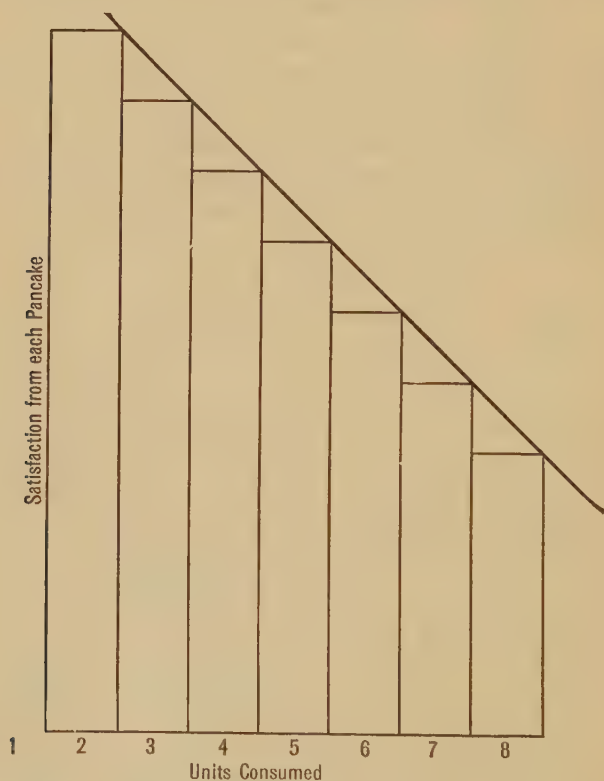


FIGURE 2. DIMINISHING UTILITY OF BUCKWHEAT CAKES

body. It is a principle discovered by observant individuals ; it is a statement of how things happen, a statement of “ an observed order of facts.” In the realm of consumption, or the enjoyment of utilities, observant human beings have dis-

covered certain tendencies which we label the laws of consumption. These we shall now summarize :

1. As consumption is continued, all wants are subject to a law of gradual diminution and final satiety. This may be illustrated by a typical American boy and his food. Suppose that we give him a breakfast of unlimited buckwheat cakes. He will attack the first plateful with great gusto ; with each additional plateful his eagerness is reduced until his hunger is satisfied, and he reluctantly confesses that he has had enough.

We can formulate his experience into *the law of diminishing utility*, as follows : *In the consumption of a series of identical goods, the satisfaction derived from each succeeding unit is less than that derived from the preceding unit.*

2. The normal purpose of consumption is to afford pleasure. Each kind of good is subject to the law of diminishing utility ; the pleasures of consumption can be increased by attention to *the law of variety*. You like peanuts. But, could you make a meal on peanuts ? It is doubtful. Scientists tell us that, for our own well-being, we should consume 3,500 calories of food a day. It is extremely doubtful if the most ardent lover of peanuts could consume that number of calories of peanuts a day. He would be forced to cease eating long before the 3,500 quota had been reached. The feeling of satiety would show itself very soon. However, vary the diet, and see how easily a normal human being will accomplish his 3,500 calories. By changing to a new form of consumption we are easily able to get the maximum of gratification out of our allotment of calories. Hence our law of variety : *Satisfaction is increased by variety in consumption.*

3. The third guide to judicious consumption is *the law of harmony*. In architecture, painting, sculpture, and music,

harmony is all-important. It is no less so in consumption. In our diet we realize it, if we try a combination of milk and lobster salad. You could not eat the component parts of a salad separately. Suppose you try it. Take a dose of pepper, a tablespoon of salt, a quarter of a cup of vinegar, a slice of lettuce, and half a tomato — remember to take each by itself. How you would enjoy the pepper! But put them together, and the result is most satisfactory.

Thus we get our law of harmony: *Greater satisfaction sometimes results from the consumption of a group of commodities in combination than from their consumption separately.*

4. We are all of us imitative creatures. We hate to acknowledge the superiority of others. If you do something, I must show you that I can do it, too, and possibly do it better. This is illustrated in consumption. If one of a group appears in a new suit of sport clothes, every member of the group is tempted to buy a suit at least as gorgeous. From this peculiarity in human nature, we derive *the law of imitation: Men tend to imitate each other in consumption.*

5. When you have one hundred dollars to spend, ordinarily you do not spend it all in one purchase. You apportion it, allotting possibly \$40 for clothing, \$20 for radio parts, \$25 for a golf outfit, and \$15 for miscellaneous purposes. You try to get as much satisfaction from each dollar as from any other dollar. This is called *the law of economic order of consumption*, and is as follows: *Men try to distribute their expenditures for different kinds of goods in such a way as to get the largest possible consumers' surplus.*

6. As far as an individual is concerned, no monetary problem is more practical than this, "How does he spend his yearly income?"

Many studies have been made of family expenditures. The best known is that made in Saxony seventy years ago by Ernst Engel. The following table shows the results of his investigations.

TABLE 2
ENGEL'S LAW

	LABORER'S FAMILY	MIDDLE-CLASS FAMILY	WELL-TO-DO FAMILY
ABSOLUTE NECESSITIES			
{ Food	62	55	50
{ Clothing	16	18	18
{ Rent	12	12	12
{ Fuel and light	5	5	5
	95%	90%	85%
OTHER EXPENDITURES			
{ Education, public worship	2	.35	.55
{ Legal protection	1	.2	.3
{ Care of health	1	.2	.3
{ Comfort, mental and bodily re- creation	1	.25	.35
	5%	10%	15%

American experience, in general, confirms this German study, with some minor variations. On the basis of these figures, *Engel's law of family expenditures* has been formulated as follows: *As the income of a family increases, the proportionate expenditure for food decreases, that for clothing, rent, fuel, and light remains approximately the same, and that for cultural wants increases.*

THE HIGH COST OF LIVING

Why are prices so high? — Complaint because of high prices is general. Why are prices high? The various causes pointed out by different students of the problem were presented by the Massachusetts Commission on the Cost of Living in tabular form as follows:

I. Increase of uneconomic expenditures :

A. Social wastage.

1. War and national armaments.
2. Higher scale of governmental expenditure.
3. Increasing cost of burden of crime, pauperism, insanity, accident, disease, unemployment, and the like.

B. Individual wastage.

1. Drink.
2. Luxury.
3. Amusement.
4. Domestic waste.

II. Increase of economic expenditures because of higher prices. The causes of the advance of prices may be classed as :

A. Changes in supply.

1. Drain of population from the land.
2. Exhaustion of natural resources.
3. Wasteful methods of production and distribution.
 - a. Transportation.
 - b. Wholesale and retail costs.
 - c. Advertising.
 - d. Adulteration.
 - e. Package foods.
4. Tariff.
5. Trusts.
6. Labor unions.
7. Legislation.
 - a. Sanitary laws.
 - b. Pure food laws.
 - c. Labor laws.

B. Changes in demand.

1. Growth and urban concentration in population.
2. General advance of standard of living.
3. Extravagance in expenditures.

C. Changes in value of money.

1. Increase of gold supply.
2. Inflation of currency.
3. Extension of credit.

The Commission analyzed thirty published articles on the subject published during the first six months of 1910; their analysis reveals valuable data. They are presented in the following table:

TABLE 3

CAUSES	PRINCIPLE CAUSE	CONTRIBUTORY CAUSE
1. Increase of gold supply	17	4
2. Exhaustion of natural resources	4	8
3. Rising standard of living	2	3
4. Withdrawal of population from agriculture, and growth of cities	2	1
5. Trusts and combinations	2	10
6. Tariff	1	7
7. Labor unions	1	3
8. Growth of population and unscientific methods of farming	1	4
9. Extravagance in expenditure	—	6
10. Waste and fraud in distribution	—	5
11. Uneconomical marketing and housekeeping	—	3
12. Speculation	—	3
13. Immigration	—	2

The findings of the Commission relative to the causes of advanced prices are as follows:

1. The primary cause of the world-wide advance of prices since 1897 is the increase of the gold supply, which has reduced the purchasing power of money and in the United

States has served as the basis for a vast extension of credit.

2. The advance of prices in the United States has been accelerated greatly by the enormous waste of income, (a) through uneconomic expenditure for war and national armament; (b) through multiple forms of extravagance, both public and private; (c) through wastage, both individual and social; (d) through increasing burden of disease, accident, crime, and pauperism imposed upon society; (e) through losses caused by a rising scale of luxuries; and (f) through wasteful methods of management in the household. The Commission has thus found six potent causes of the advanced cost of living.

3. The main factors in restricting supply and enhancing the cost of commodities are (a) the drain of population from the land, which has decreased the proportion of persons engaged in producing the food supply; (b) the exhaustion of natural resources, which has resulted in increased expenses of production or diminished returns from the soil; and (c) uneconomic methods of production and distribution, especially the latter.

The chief influences on the side of demand are (a) the growing concentration of population in great cities, which has increased the proportion of non-producing food consumers; (b) the general advance of the standard of living, which has enlarged the requirements on the part of individual consumers of all classes; and (c) the national habit of extravagance.

4. With regard to the tariff, the trusts, and the unions, which have been declared to be either primary or contributory causes of the high cost of living, the commission finds that none of these factors can be regarded as a direct and active cause of the recent increase of prices.

TABLE 4

INDEX NUMBERS OF COST OF LIVING IN 32 CITIES (1913=100) ¹

PERIOD	TOTAL	FOOD	CLOTH- ING	HOUS- ING	FUEL AND LIGHT	FURNI- TURE, HOUSE FUR- NISHINGS	MIS- CELLA- NEOUS
1914, December . . .	103.0	105.0	101.0	100.0	101.0	104.0	103.0
1915, December . . .	105.1	105.0	104.7	101.5	101.0	110.6	107.4
1916, December . . .	118.3	126.0	120.0	102.3	108.4	127.8	113.3
1917, December . . .	142.4	157.0	149.1	100.1	124.1	150.6	140.5
1918, December . . .	174.4	187.0	205.3	109.2	147.9	213.6	165.8
1919, December . . .	199.3	197.0	268.7	125.3	156.8	263.5	190.2
1920, June	216.5	219.0	287.5	134.9	171.9	292.7	201.4
1920, December . . .	200.4	178.0	258.5	151.1	194.9	285.4	208.2
1921, May	180.4	144.7	222.6	159.0	181.6	247.7	208.8
1921, December . . .	174.3	149.9	184.4	161.4	181.1	218.0	206.8
1922, quarterly average	167.3	141.5	172.7	161.2	180.0	205.1	201.6
1923, quarterly average	171.0	146.5	175.5	164.2	183.0	221.2	200.9
1924, quarterly average	170.7	146.1	173.4	167.8	179.8	217.1	201.3
1923							
March	168.8	141.9	174.4	162.4	186.2	217.6	200.3
June	169.7	144.3	174.9	163.4	180.6	222.2	200.3
September	172.1	149.3	176.5	164.4	181.3	222.4	201.1
December	173.2	150.3	176.3	166.5	184.0	222.4	201.7
1924							
March	170.4	143.7	175.8	167.0	182.2	221.3	201.1
June	169.1	142.4	174.2	168.0	177.3	216.0	201.1
September	170.6	146.8	172.3	168.0	179.1	214.9	201.1
December	172.5	151.5	171.3	168.2	180.5	216.0	201.7

¹ Bureau of Labor Statistics, Department of Labor.

TABLE 5

INDEX NUMBERS OF COST OF LIVING IN PRINCIPAL CITIES¹

CITY	INDEX OF TOTAL COST OF LIVING FOR —							INDEX DECEMBER, 1923, FOR —						
	Dec., 1917	Dec., 1918	Dec., 1919	June, 1920 (Peak)	Dec., 1920	Dec., 1921	Dec., 1922	Dec., 1923	Food	Clothing	Housing	Fuel and Light	Furniture and Furnishings	Miscellaneous
	Dec., 1914 = 100													
Baltimore, Md.	151.3	184.7	198.4	214.3	196.8	173.2	170.9	174.8	150.6	181.8	171.9	193.5	230.2	205.2
Boston, Mass.	138.1	170.6	192.3	210.7	197.4	170.2	165.1	169.4	148.8	192.6	147.0	197.0	248.2	193.0
Buffalo, N. Y.	151.1	180.9	202.7	221.5	201.7	176.8	173.9	178.6	151.9	183.8	171.8	220.4	227.5	202.5
Chicago, Ill.	141.8	172.2	200.6	214.6	193.3	172.2	168.0	173.7	152.5	176.0	195.4	159.3	232.9	188.1
Cleveland, Ohio	142.9	171.4	198.2	220.3	207.3	178.8	172.9	179.6	143.6	179.6	178.7	247.0	223.3	213.1
Detroit, Mich.	149.9	178.0	207.9	236.0	218.6	182.4	179.4	184.7	147.5	185.3	207.5	184.9	205.3	228.4
Houston, Tex.	144.9	175.7	201.7	212.2	204.0	173.6	168.4	170.6	146.4	202.6	136.4	155.8	248.2	193.2
Jacksonville, Fla.	141.6	171.5	201.5	216.5	206.2	175.1	167.8	171.9	139.9	204.5	133.4	175.1	239.4	196.6
Los Angeles, Calif.	128.9	158.0	185.3	201.7	196.7	176.4	174.5	178.8	142.1	183.0	200.9	134.1	252.0	204.2
Mobile, Ala.	143.2	171.4	194.5	207.0	193.3	163.6	158.8	162.6	144.7	155.4	142.6	198.1	214.8	191.3
New York, N. Y.	144.7	177.3	203.8	219.2	201.4	179.3	174.2	177.3	152.0	202.7	162.4	194.2	231.5	213.5
Norfolk, Va.	145.2	180.7	207.0	222.2	209.0	179.2	169.9	172.4	140.7	180.8	167.0	196.9	203.8	204.4
Philadelphia, Pa.	143.8	173.9	196.5	213.5	200.7	174.3	170.7	174.7	145.1	188.2	166.9	202.2	211.6	212.0
Portland, Me.	138.0	172.2	191.6	207.6	193.1	169.2	164.1	166.9	152.3	176.7	131.7	200.0	230.2	189.3
Portland, Ore.	131.2	164.2	183.7	200.4	180.3	158.3	156.1	157.8	135.1	161.8	142.7	167.1	209.0	179.6
San Francisco and Oakland, Calif.	128.6	157.8	187.8	196.0	185.1	163.6	158.8	162.1	142.3	194.4	136.0	148.8	216.9	181.2
Savannah, Ga.	142.5	175.0	198.7	209.4	198.7	166.2	156.8	155.9	118.4	180.9	147.5	164.1	234.4	176.7
Seattle, Wash.	131.1	169.9	197.7	210.5	194.1	171.5	166.7	168.5	135.8	177.6	162.9	159.1	244.2	196.6
Washington, D. C.	147.3	173.8	187.6	201.3	187.8	163.0	159.5	163.2	152.3	181.2	134.3	147.0	228.8	174.9
Atlanta, Ga.	100.0	119.7	137.9	146.7	138.5	118.7	115.1	116.0	93.7	106.9	162.2	139.3	123.5	133.3
Birmingham, Ala.	100.0	117.0	134.3	141.9	133.3	116.2	131.2	116.0	93.4	103.8	167.9	150.2	119.7	127.2
Cincinnati, Ohio	100.0	117.3	135.2	147.1	134.7	115.3	113.8	117.7	93.3	109.2	145.6	133.0	126.2	143.3
Denver, Colo.	100.0	120.7	138.2	150.3	138.7	124.5	121.6	122.1	91.3	117.9	188.9	137.2	127.0	136.8
Indianapolis, Ind.	100.0	119.1	136.5	150.2	137.6	119.3	118.8	120.6	93.5	113.4	147.1	141.5	124.0	149.2
Kansas City, Mo.	100.0	119.6	138.2	151.0	139.5	122.5	116.2	117.2	89.8	115.2	156.8	136.7	122.6	136.2
Memphis, Tenn.	100.0	118.3	135.2	146.4	139.3	123.2	118.6	121.0	88.8	111.0	172.5	165.0	123.4	137.3
Minneapolis, Minn.	100.0	115.8	132.7	143.4	135.7	120.7	118.0	118.8	95.3	109.3	147.4	145.6	128.2	132.0
New Orleans, La.	100.0	117.9	133.9	141.9	136.7	122.7	118.6	120.2	91.3	119.5	157.4	137.1	133.6	150.3
Pittsburgh, Pa.	100.0	119.8	136.2	149.1	139.3	122.8	120.1	122.9	97.9	114.9	160.7	176.9	129.0	143.1
Richmond, Va.	100.0	117.9	132.0	143.8	133.3	118.3	114.4	117.1	95.2	112.9	139.4	161.2	140.5	135.4
St. Louis, Mo.	100.0	116.7	134.2	148.9	135.4	118.5	117.0	120.6	92.5	109.6	179.5	132.1	130.5	135.8
Scranton, Pa.	100.0	121.9	137.1	151.5	139.1	126.3	122.4	125.8	100.2	123.2	160.8	175.3	134.9	151.7

¹The Bureau of Labor Statistics, Department of Labor.

EXERCISES AND PROBLEMS

I

1. Give four motives that actuate people in working.
2. What are necessities? comforts? luxuries?
3. What is consumption?
4. What is destroyed in consumption?
5. Name three types of consumption. Give an example of each that is not given in the book.
6. What part do "wants" play in life?
7. What is the origin of our primary wants?
8. How do wants other than primary originate?
9. What is the difference between the desire for an article and a demand for it?
10. What is a commodity? a good? an economic good? a free good? wealth? service?
11. What is a durable good? a perishable good?
12. What is a consumer's good? a producer's good? Give an example of each.
13. What is a utility? What is utility?
14. What is elementary utility? How is it created? Give an example.
15. What is form utility? Name three types of industry that create it.
16. What is place utility? Name two types of industry that create it.
17. What is possession utility? Name three types of industry that create it.
18. What is consumer's surplus? Give an illustration not in the book.
19. What is time utility? Give two illustrations not in the book.
20. What is service utility? Give two illustrations not in the book.
21. State and illustrate the following laws:

- a. the law of diminishing utility
- b. the law of variety
- c. the law of harmony
- d. the law of imitation
- e. the law of the economic order of consumption
- f. Engel's law.

22. Under the headings (a) increase of uneconomic expenditure and (b) increase of economic expenditure because of higher prices, enumerate the various causes given for the high cost of living.

23. Enumerate the five most important causes of high prices as found by the Massachusetts Commission on the Cost of Living in its examination of thirty published articles on the subject.

24. Summarize under four headings the findings of the Commission.

25. Do you agree with the Commission in its fourth "finding"? Why or why not?

II

1. "The farmers of this country are the only producers here, all the rest are parasites." Show the fallacy of this opinion.

2. What logical reason can you give for beginning the study of Economics with the department of consumption?

3. Is feeding grain to cattle consumption? Is wearing out a pair of shoes by a working man consumption or production?

4. Obtain family budgets for your own locality, if you can, and compare them with Engel's figures.

5. What changes in the consumption of the American people has prohibition made?

6. Mention five actual instances of waste consumption that you have personally noticed. Were they conscious or unconscious? Could they have been avoided? Were they in any way beneficial to society?

7. From "Index Numbers of Cost of Living in Principal Cities, 1917-1923," construct a graph for the city nearest your home.

no 5. no 1. III no 4.

III

1. Illustrate economic necessity by making a list of economic goods which you consider necessities in your case.
2. Illustrate the truth of the statement that what is a luxury for one man may be a necessity for another.
3. "It pays to advertise." Argue for or against the truth of this statement. Does advertising increase the wealth of society? Give your reasons.
4. Taking a farm or a factory as an illustration, show what is meant by marginal utility of (a) land, (b) labor, (c) capital.
5. A uses a certain amount of capital in maintaining a steam packet and a crew of twelve men engaged in carrying garden truck from South Carolina to New York City. B uses the same amount of capital in maintaining a steam yacht and a crew of twelve men for making occasional pleasure trips. Discuss the economic value of each undertaking to the community.
6. A reformer recently said: "He who consumes economic wealth in excess of his production is a parasite on the body politic. For every such person there must be at least one person who receives for consumption less than he actually produces." Explain and illustrate this statement, and show whether it is true or false.
7. "Since there is only a limited amount of economic energy and productive power, the production of luxuries reduces the amount of the necessities that may be produced, thus increasing the number of paupers with the increase of the numbers who encourage luxury." Point out the truth or error of this statement.

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Thrifty & Parsimonious
Just Thrifty

CHAPTER III

CONSUMPTION AND THRIFT

THRIFT IN THE USE OF PROPERTY

How do you use your belongings? — Thrift is not alone concerned with “saving money”; that important aspect of thrift we shall consider shortly. Thrift also relates both (1) to the manner in which we use and care for the goods we purchase and (2) to the way in which we spend our income.

A thriftless boy takes no care of himself or his possessions. On the other hand, a thrifty boy takes care of his body and of his clothes. His garments, when not in use, are carefully put away; overcoats and suits are hung up on hangers so that they will keep their shape; shoe-trees are placed in shoes so that they will not wrinkle and crease; shirts, socks, and underclothing are put away in certain chiffonier drawers, with the pieces newly laundered at the bottom. In this way, wear is not confined to those always on top, and the period of usefulness of garments is prolonged. Thrifty young ladies take similar care of their wearing apparel and personal effects. Books, pictures, and other personal belongings are kept in a place of safety protected from the dust. If a thrifty person buys a radio set, an effort is made to keep it in good condition; batteries are always charged. If he buys an automobile, it is oiled frequently and washed regularly. In a word, *the thrifty person takes care of his possessions.*

Are you thrifty in thus caring for your "goods and chattels"? If not, reform at once and acquire the habit. It will not cost you a cent, and it will save you many dollars.

THRIFT IN EXPENDITURES

Right and wrong consumption. — The object of consumption is the satisfaction of human wants. Consumption which does not result in satisfaction commensurate with the accompanying destruction of utility is waste consumption, and this is uneconomical and socially unjustifiable. Thus society is the loser in consequence of loss and destruction by fire, flood, and earthquake.

It is equally true that extravagant, ostentatious, and spendthrift expenditures are socially unfair and unjustifiable. Those to whom fortune has come suddenly, with little or no effort on their part, are often so entranced by the new experience that they not only appear ridiculous but engage in riotous consumption which is needless and wasteful. "Easy come, easy go," describes, in the form of proverb, a common human tendency. Unfortunately, Cleopatra, dissolving pearls in wine, has modern imitators. Alcibiades, the young Athenian "sport" and "good-fellow," is not without his modern counterpart. Neither the ancient nor the modern spendthrift can be classed as a desirable citizen. The benefit they derive from consumption is out of proportion to the great expense; and by their careless, foolish, and unremunerative expenditures they reduce in just that measure the possible satisfaction of human needs by others.

The make-work fallacy. — A vain attempt is made to refute this line of reasoning by alleging that spendthrift expenditures make possible the employment of many people. It is said that various classes of attendants at resorts and

purveyors of all kinds of riotous joy make their living through the bounty of these foolish spenders; that the extravagant "give employment to labor" and "put money into circulation."

They who make this argument have missed the point. The purpose of production, it is true, is consumption; but the purpose of consumption is the human satisfaction which the commodity was intended to gratify.

The human satisfaction derived from extravagant, spend-thrift, or useless expenditures, is grossly out of proportion to the costs of production. The want gratification of the goods or services purchased does not measure up to their cost; we may thus say that their utility is grossly incommensurate with their cost. Such consumption diverts production from those enterprises which would result in adequate human satisfaction and turns it to lines of production which fail in accomplishing the true end of production — the gratification of human wants.

Let us take, in illustration, a rich, miserly old uncle and his foolish, wild nephew. The uncle, through frugality, thrift, and fortunate investments has amassed a large fortune. He lives not only plainly but miserly; he is neither charitable nor public spirited; he refuses to give to public undertakings. The large annual surplus of his unexpended income he shrewdly re-invests from year to year; his "pile" rolls up, like a snowball, growing larger each year. He lives to an advanced age — but not forever. Although he loves his money more than anything else in the world, he fails to carry his treasures with him when he dies, and leaves them all to his nephew, who was second in his affections.

The young man has neither business ability nor habits of thrift. He proceeds to "celebrate" his good fortune by every form of reckless expenditure known in this country

and abroad. He "spends" lavishly and foolishly. He finds numerous companions to help him "give employment to labor" and "put money into circulation."

Now, which of these two persons, uncle or nephew, do you consider the more desirable citizen? Which type of action is more beneficial — that of the miser or that of the spend-thrift?

Popular opinion might possibly be partial to the spend-thrift, but scientific business opinion would favor the miserly old uncle.

Dispite his mean and selfish disposition, the uncle could not help assisting others, when he invested his funds. When he placed his funds in a savings bank, they did not remain there; the bank possibly loaned them to home-builders, on a note, secured by a mortgage; or perhaps it loaned them to a municipality, by buying its bonds, and thus aided in the construction of a city water system. The benefits unconsciously conferred upon his fellow-citizens by the uncle are important and lasting; the advantages conferred upon his beneficiaries by the nephew are transitory, and they serve to withhold labor and capital from enterprises which the public needs. The uncle and not the nephew is the public benefactor.

Economists urge a similar argument in refutation of the statement that fire, flood, earthquakes, and the desolation wrought by war are blessings in disguise because they, too, give employment to labor and put money into circulation.

Do you get one hundred cents out of a dollar? — Much of our spending is thriftless; it is thriftless largely because it is planless. When you have a sum of money to spend, do you really "take thought" as to how to get the most satisfaction out of it? If you think you are thoughtful in this way, try

[illegible]

FIGURE 3. PAGES FROM A BUDGET BOOK FOR STUDENTS

Total in left-hand column should equal the sum total of all other columns.

an experiment, *now*. Devote five minutes to the experiment. Let us suppose that you have twenty-five dollars to spend; make a list of the articles for which you would spend the money. Put the list away, and to-morrow at this time, after having "slept on it," re-read your list, and form an honest opinion of what you then think of your list. We are likely to be hasty, heedless, and thoughtless in our purchases. Clever advertisers divert our attention and secure our limited funds; in consequence we are deprived of the satisfaction we might enjoy if we would only plan seriously the purchases we make. Do not be deluded into imagining that the careful spender is mean or stingy or "close." He is only wise — it is the careless spender who is otherwise. *A thrifty person will not spend money extravagantly. In parting with a dollar, do you get something just as good?*

A budget book suitable for students in high schools has been arranged by one of the progressive banks of New York City.¹ The receipts and payments for a week are illustrated by the form on preceding page.

Personal or household budgets. — An excellent blank, entitled "Estimates for Spending Plan" has been prepared by the Bowery Savings Bank, New York. Through their courtesy it is here presented, Figure 4.

Through the courtesy of the Service Department of The Seamen's Bank for Savings in the City of New York full details of another admirable system of personal or household budgets are here presented.

1. To begin, one should make an estimate of expected income and intended expenditures for the ensuing year. This working sheet for estimating budgets will prove of

¹ *Money Book for Boys and Girls* (copyrighted) of the Bowery Savings Bank of New York, p. 53.

NAME _____	INCOME \$ _____	Year Month Week
ADDRESS _____	OCCUPATION _____	
DATE _____	FAMILY _____	

ESTIMATES FOR SPENDING PLAN

Savings	To be deposited in Savings Bank _____ To pay Life Insurance Premiums _____ For Investments _____			
Food	Meat and Fish _____ Groceries _____ Fruits and Vegetables _____ Dairy Products _____ Meals Out _____			
Shelter	Rent _____ Taxes (Land, Water, Assessments) _____ Fire Insurance _____ Business Carfare (Commutations) _____ Repairs and Upkeep _____			
Clothing	(Separate estimates for each member of family) _____ _____			
	Sewing Materials _____ Mending, Pressing, etc. _____ _____			
Operating	House	Fuel	Light	Ice
		Telephone	Service	
		Laundry	Supplies	
		New Equipment		
	Personal	Allowances		
		Toilet Articles		
		Entertaining		
		Carfare		
Advancement	Health	Physician, Oculist, etc. _____		
		Dentist _____		
		Recreation—Vacation _____		
	Education	Tuition _____		
		Books, Magazines, Newspapers _____		
		Lectures and Travel _____		
	Social	Church	Charity _____	
		Gifts	Club Dues _____	
		Income Taxes	_____	
TOTAL \$ _____				

FIGURE 4. ESTIMATES FOR SPENDING PLAN

	FIXED CHARGES	POSSIBLE TO ESTIMATE	NECESSARY TO LIMIT	Name..... Total Income from Address..... all sources \$.....
SAVINGS (Margin of Profit)	Life Insurance Payments on Home Reserve Fund	Investments	Travel	Life Insurance Reserve Fund Investments Travel or Special
SHELTER	Rent Interest on Mortgage Business Carfare	Taxes Insurance Repairs		Rent Water Fire Insurance Business Carfare Interest on Mortgage Taxes Repairs
FOOD		Groceries Dairy Products Meat & Vegetables	Outside Meals Out of Season Food	Meat & Fish Fruits & Vegetables Dairy Products Groceries Meals Out
GENERAL EXPENSES — Household	Water Fuel & Light Regular Service Telephone	Supplies Laundry Fuel & Light	Extra Service	Fuel & Light Supplies Service Renewal of Equipment
— Personal		Income Tax Allowances Gifts Entertaining	Automobile, etc. Candy, Tobacco Toilet Articles	Taxes, Federal & State Allowances Gifts & Entertaining Carfare
CLOTHING		New Clothing New Materials	Cleaning Repairing Tailor Dressmaking	New Clothing Materials Repairing Cleaning
ADVANCEMENT	Church & Club Dues Periodicals Tuition	Charity Doctor & Dentist	Lectures Concerts	Doctor & Dentist Vacation Music & Lectures Books & Periodicals Charity Church

FIGURE 5. WORK SHEET

practical assistance in accomplishing this step. Wise advice is given as to estimating expenses: "The 'Fixed Charges,' most of which are paid annually, should be estimated and a weekly allowance made for the accumulation of funds to provide for the payment of them.

"Under the column 'Possible to Estimate' are listed most of those expenses necessary to everyday living. Those 'Necessary to Limit' include items of luxury; and while they are very desirable, they must be carefully limited lest they may exceed their share of the income or lest they may be obtained at the expense of those essential to a healthful and well ordered living." A sensible remark follows the preceding statement to the effect that "while it is well to follow this plan as closely as possible it may be necessary to revise the plan from time to time until it meets your particular requirements. Any personal or household budget outline must be flexible and adaptable to be successful." To this the caution might be added that a budget is not an end in itself; it is a means to an end only; its purpose is to aid (a) in wise expenditure, and (b) in building up a fortune that will care for you in later years.

2. The next step in making a personal or family budget is (a) to make a clothes inventory for each member of the family, indicating what new garments will be needed during the coming year, and (b) a household inventory of furniture, dishes, etc., also indicating what must be replaced.

3. The occasional payments such as insurance and taxes, should be listed; and

4. The Inventory Balance Sheet should be filled out; it will show exactly where you stand financially at the beginning of the year.

The budget account follows. You will notice that it provides space for each day of the month in which to enter

PAYMENTS TO BE KEPT IN MIND INSURANCE, TAXES, ETC.			INVENTORY BALANCE SHEET					
			SHOWING			Worth Today		
			Date _____			192 ____		
DATE		AMOUNT	CREDIT			DEBIT		
			Property Consists of:			Obligations are:		
			Cash on Hand			Bills Due		
			Cash in Bank					
						Mortgage		
			Bond-Stocks					
						Building Loan		
			Real Estate					
						Other Loans		
			Furniture					
						Interest Due		
			Automobile					
			TOTAL			TOTAL		
			Deduct Debit Amount					
			NET WORTH					

WHAT WILL THIS BE A YEAR FROM NOW?

FIGURE 7. PERIODICAL PAYMENTS AND INVENTORY BALANCE SHEET

GENERAL EXPENSES				ADVANCEMENT			Daily Totals Paid Out (Add Column Totals Across Page)
HOUSE	PERSONAL	MISCELLANEOUS	HEALTH	EDUCATION			
Electricity, Gas; Repairs; Renewal of Equipment; Coal, Ice; Oil, Soaps; Laundry Service; Furniture; Telephone; Burglary Insurance	Allowances; Gifts; Entertaining; Cigars; Carfares; Candies; Toilet Articles; Personal Taxes		Dentist; Doctor; Medicines; Vacations; Recreation	Instruction Books; Magazines; Church Support			
1							
2							
3							
4							
5							
28							
29							
30							
31							
TOTAL							

GENERAL EXPENSES		ADVANCEMENT		* Carry this Total over to Opposite Sheet
Budget Allowance	Amount Spent	Budget	Spent	

FIGURE 8. THE BUDGET ACCOUNT (Continued)

either income or expenditures, and these are itemized and classified. At the end of the month all columns should be totaled so that you can ascertain whether or not you are keeping within or exceeding your budget and where.

At the end of the year, you will make a summary using the blank prepared for that purpose; this will show you how successful you have been in living up to your good resolutions. You will also fill in the "Inventory Balance Sheet"; this will enable you to compare your financial situation with what it was a year ago.

Suggested budgets are appended. They are based on New York prices and are adapted to the varying circumstances of different people. They are merely suggestive but should prove serviceable.

SUGGESTED BUDGET FOR THE BACHELOR

Income per month	\$100	\$150	\$200	\$250	\$300
Savings	9	15	25	35	50
Rent	24	30	40	55	60
Food	36	45	50	60	75
Clothing	18	25	30	35	35
Personal operating	5	15	20	25	35
Advancement or development .	8	20	35	40	45

SUGGESTED BUDGET FOR THE BUSINESS WOMAN

Income per month	\$85	\$100	\$125	\$150	\$175	\$200	\$225	\$250
Savings	2	6	10	15	20	25	35	45
Room and two meals	44	44	52	52	58	68	72	80
Lunches	10	10	12	15	15	18	18	20
Clothing	18	22	27	35	40	44	50	50
Personal operating	5	8	10	14	18	18	20	20
Advancement or development .	6	10	14	19	24	27	30	35

FAMILY: MAN AND WIFE

Monthly income	\$125	\$150	\$200	\$250	\$300
Savings	15	25	35	45	55
Food	40	40	50	50	55
Shelter	35	40	50	65	85
Clothing	15	20	25	30	35
Operating	8	10	15	25	25
Advancement or development .	12	15	25	35	45

One of the most important questions in the mind of the man and woman contemplating marriage is, how much money is necessary for a beginning? Most experts recommend that a man should have sufficient money to pay outright for the furniture of his home and after paying the wedding and honeymoon expenses should have enough in the bank to support himself and his wife for at least four months.

Planned spending for the newly married is of greatest importance. They are not only learning to make the income meet the demands of two instead of one but are looking forward to having a family which means the necessity of a large reserve fund.

Perhaps the most important investment a newly married man can make is life insurance. The first consideration should be protection for the family; ordinary (or straight) life insurance without a doubt supplies that need.

A young couple can keep out of debt and lay the foundation of sound prosperity by sanely taking stock of income at the very beginning and then making a budget and sticking to it. There should be an early understanding and agreement that marriage is a partnership; that the man and wife should be partners with equal and mutual control over family finances.

The suggested budget, based on current New York prices is only an average, and may not meet your particular requirements.

Savings. To build up a permanent savings fund the regular putting aside of a definite sum must be considered as

much of an obligation as the payment for rent and food. The sum may be in the form of a savings account, life insurance, home ownership, or investment, recommended by your bank. *Food* includes not only groceries, milk, and meat but ice and all meals taken outside the home. *Shelter* includes taxes, rent, and fire insurance or interest payments on the home. *Clothing* is a seasonal expense, but the regular weekly setting aside of a part of the income for a clothing allowance will insure ready money when it is needed. *Operating* should include all necessary expenses for the running of the home: fuel, light, help, laundry, household furnishings, etc. *Advancement or Development* is the term used for the fund set aside for the special and seasonal expenses beyond the bare necessities of life such as:

Church	Magazines	Dentist	Amusements
Charity	Newspapers	Allowances	Vacation
Clubs	Education	Gifts	Books ¹
	Doctor	Autos	

SUGGESTED BUDGET FOR A FAMILY OF FIVE

Income per week	\$100	\$125	\$150	\$200
Savings	12	18	25	35
Food	20	20	25	30
Shelter	25	30	35	40
Clothing	20	24	25	30
Operating	10	15	20	25
Advancement or development	13	18	20	40

SUGGESTED BUDGET FOR A WEEKLY INCOME OF \$60

Number in family	2	3	4	5
Savings	\$10	\$ 8	\$ 7	\$ 4
Food	12	13	15	16
Shelter	15	15	15	15
Clothing	8	9	10	12
Operating	6	6	6	6
Advancement or development	9	9	7	7

¹ Quoted from the *Household Budget and Account Book* of the Seamen's Bank for Savings.

It is the hope of the author that your personal interest in budgets will be sufficiently aroused so that you will wish to keep one. If you are interested, apply to your local savings bank for their suggestions and a budget book. In case you fail to procure through them the budget book, if you will write to the Service Department of The Seamen's Bank for Savings, 74 Wall Street, New York, and mention the source of your information, the bank will send you a copy of their Household Budget and Account Book.

The author further suggests that you call the attention of your mother to this description of the Household Budget; in the home, it is mother who makes most of the household expenditures; if, by taking a little thought, she can make a dollar do the work of a dollar and a quarter, that will be the same as adding twenty-five per cent to the family income.

Young ladies studying Economics should take a special interest in the wise expenditures of the family income; some day it will be theirs to administer the family finances; by an economical expenditure of their own family income they can render both a private and a public service.

Do not make the mistake of thinking that a budget is an end in itself; let it be flexible, and remember that the main idea is to help you save.

THRIFT IN INVESTMENTS

Saving money. — The new "golden rule": "Of every dollar you get, never 'spend' more than ninety cents; if possible, spend less."

We have already considered thrift in the use of goods and thrift in expenditures; let us now take up thrift in its ordinary meaning; that is, thrift in the saving of money.

If you would be thrifty in this way, there are three necessary steps.

First, your income must exceed your expenditures — there must be a surplus.

Second, this surplus must be saved; it may not be "spent" in the immediate satisfaction of your wants. Suppose you are getting a salary of one hundred dollars a month; you have been efficient and interested in your work; your employer recognizes these admirable qualities by raising your salary to one hundred and twenty-five dollars a month; this will give you three hundred dollars more per year. What will you do with the additional income? Your first impulse is to say: "Why, spend it, of course."

But, not so fast. Let us consider a moment.

You were getting along in fair comfort before you received the increase, were you not? If so, do you think you would act wisely in spending all of the additional income? Why not spend half of it, and add the other half to the monthly savings account?

But, merely to save, that is, to refrain from spending, is not enough. The true miser "saves," but he stops there; he hoards his wealth; his only pleasure derived from it is to gloat over it. No truly sensible person does that. Another step is needful in this process of "saving money."

Third, your savings must be invested or put to work for you. In a secret hiding place, your savings would be of little value to you; in fact, they would be a source of worry lest you lose them.

These are the three necessary steps: *surplus, saving, investment.* Some unfortunate people cannot save because they have no surplus; others have a surplus, it may be, but they thoughtlessly spend it in momentary gratification; persistent individuals take the third step: they invest their savings.

Investing your savings. — Few people give time and

thought to the serious study of investments; when the average person has money to invest, he is apt to be influenced by the first chance individual who comes along, or he may take a "tip" from some interested or some uninformed person, and he puts his money where he afterwards wishes he had not. Strange to say, this is as true of shrewd business men and women as it is of those not actively engaged in business. They are all wont to take a "flier" or to buy "on a margin," or to do some other risky thing. Skill in one practical line of business does not necessarily qualify one to act wisely in the highly complicated undertaking of investing funds. Investment of funds has itself become a technical calling, and dabblers in it invariably meet with disaster. Margin operations, for instance, rarely succeed; ninety-seven per cent of such operations result in eventual loss of money.

"What, then, shall I do with my savings?" you ask. Three safe rules for the investor have been given by a competent advisor:

First, buy only the best seasoned securities, preferably municipals and underlying corporations bonds.

Second, buy only outright and avoid all margin purchases.

Third, buy at regular intervals whenever you have the money.

Different types of security purchasers. — There are at least four types of purchasers of securities.

First, those who buy stocks on a margin to-day with the idea of selling again in a few days at a profit. These are the "lambs" who are almost invariably "fleeced" by the professional traders; they are gamblers playing with dice loaded against them.

Second, the men who buy stocks on a margin to-day with the idea of selling them a month or so hence; these men try

to follow the insiders, and study the technical conditions of the market. This takes large means and special knowledge, and, withal, is exceedingly dangerous.

Third, the men who buy outright high-grade securities, mainly for their interest or dividend yield, but also for a profit on selling at higher prices. They buy when prices are low and sell when they are high. This is legitimate but it requires time, patience, and special knowledge.

Fourth, those who likewise buy outright only high-grade securities for permanent investment; they give no time or study to fundamental business conditions; they look merely for as large an annual income as is compatible with safety. But even these careful people should have their list of investments appraised once a year.

The last class is the one you should first join, and remain in it until you are willing to give the requisite time and study and to meet the expense necessary to place you in the third class. After the first thousand dollars have been saved and placed in a savings bank, you can talk with your banker friends and get their advice as to other avenues of investment. You might ask them to recommend a bond house, and, before buying from the bond house, submit the offering to the bankers, *and do not buy what they condemn.*

Your first investment. — Let us suppose that you are either a single woman or a single man, described in the Family Budget Book on page 63; your income is then \$25 a week; your savings are ten dollars per month, which will amount to \$120 per year. Now, what does wisdom dictate that you shall do with the ten dollars you plan to save each month?

To a young person, the first step in building a fortune is to open a savings bank account. Such is the potency of

compound interest that a weekly deposit of ten dollars in a savings bank, at only 4% interest, will, in ten years, amount to no less than \$6,380.47. That is worth while, is it not?

TABLE 6

SAVED AND DEPOSITED WEEKLY	4% PER YEAR COMPOUNDED SEMI-ANNUALLY									
	1 YEAR	2 YEARS	3 YEARS	4 YEARS	5 YEARS	6 YEARS	7 YEARS	8 YEARS	9 YEARS	10 YEARS
\$ 1.00	\$ 53.05	108.24	165.65	225.38	287.53	352.19	419.46	489.45	562.27	638.04
2.00	106.09	216.46	331.30	450.78	575.09	704.41	838.96	978.95	1124.59	1276.11
3.00	159.13	324.69	496.94	676.15	862.50	1056.48	1258.30	1468.27	1686.73	1914.00
4.00	212.18	432.93	662.60	901.55	1150.15	1408.79	1677.89	1957.86	2249.14	2552.18
5.00	265.23	541.17	827.26	1123.89	1432.50	1753.58	2087.63	2435.17	2796.75	3182.94
6.00	318.27	649.40	993.91	1352.34	1725.25	2113.22	2496.46	2915.59	3351.65	3805.32
7.00	371.32	757.64	1159.56	1577.72	2012.77	2465.41	2936.33	3426.28	3936.02	4466.35
8.00	434.36	865.87	1325.22	1803.12	2300.33	2817.63	3355.82	3915.76	4498.32	5104.42
9.00	477.41	974.11	1490.87	2028.51	2587.87	3169.83	3775.30	4405.23	5060.60	5742.45
10.00	530.45	1082.33	1656.51	2253.88	2875.39	3522.01	4194.75	4894.66	5622.85	6380.47

Just try it for yourself. They are always the first steps that are hard. Your small brother or sister may possibly be learning to walk; after the small child has learned how to walk, walking will be easy for it. It is the same in saving money; once you have acquired the habit of saving, you can do it easily, and you will actually find pleasure in doing it.

You will have no difficulty in understanding the forms in use in a savings bank, providing you are a patron of the savings bank in your own school.

The following are blanks used by the school savings bank of Erasmus Hall High School, Brooklyn, N. Y.; Figures 10 and 11 constitute the pass book given each depositor; they show the front, the back, and the inside.

RULES AND REGULATIONS

1. Deposits may be made in amounts of five cents and upwards.
2. No payment will be made on this account unless this pass-book is presented together with a properly signed voucher for such payment.
3. The presentation of this pass-book shall be evidence that the person presenting it is entitled to receive the money, and any payment so made shall discharge the bank from any further liability for amounts so paid, unless due notice in writing has been given to the bank that the pass-book has been lost or stolen.
4. Depositors must keep at least 5 cents in the bank until they leave the school.
5. This bank does not pay interest on deposits. When an account amounts to \$5.00 or more, depositors are urged to transfer the account to another Savings Bank, where interest is paid. Assistance in making this transfer will be given on application.
6. If this book is lost, a small fee will be charged to cover cost of stationery.
7. This bank will open on the first Wednesday after school begins in September and will close for the summer on the Friday preceding Regents' week in June. It will also be closed during Regents' week in January.

Acct. No. _____

The Savings Bank

OF

Erasmus Hall High School

Flatbush and Church Avenues

Borough of Brooklyn

J. Herbert Low**Principal****IN ACCOUNT WITH**

Pupil _____

Grade _____ Room _____

George F. Wilder MANAGER

All Funds Deposited In

THE FLATBUSH SAVINGS BANKFIGURE 10. PASSBOOK (*Outside*)

Form 45

ACCT. NO. _____

In Account With

SCHOOL SAVINGS BANK OF

[illegible]

FIGURE 11. PASSBOOK (*Inside*)

Figure 12 is the deposit slip. Figure 13 is the withdrawal slip.

DEPOSIT SLIP

RECEIVED BY

POSTED BY

ACCT. NO.

DEPOSITED BY

 NAME IN FULL

CLASS.....ROOM.....

IN THE

ERASMUS HALL HIGH SCHOOL
SAVINGS BANK

.....19.....

	DOLLARS	CENTS
Coin.....		
Bills.....		
.....		

FIGURE 12. DEPOSIT SLIP

Personal Order
 Discharged from school
 Received from

Transferred to Savings Bank
 Lost Passbook
 Signature _____
 Entered by _____

ERASMUS HALL SAVINGS BANK

Paid by _____

Amount drawn \$ _____

WRITE AMOUNT

Book No. _____

Date _____

Signature _____

Present Address _____

NEVER WRITE A CHECK WITH A PENCIL

FIGURE 13. WITHDRAWAL SLIP

Figure 14 is the alphabetical signature record.

Form 3
 Div. of Sch. Bks.
 Bd. of Edu. N. Y. C.
 Alphabetical Signature Record

Acct. No. _____

Name (in full) _____

(Depositor must write name on this line)

Class -1- _____ -2- _____ -3- _____ Room -1- _____ -2- _____ -3- _____

Father's Name _____ Mother's Name _____

Parent's Business Address _____

Home Address -1- _____

Acct. Opened _____ Clerk _____ Closed _____

School _____ Boro _____

FIGURE 14. ALPHABETICAL SIGNATURE RECORD

Figure 15 is the receipt signed by a depositor on closing his account.

Form 10 Div. of Sch. Sec. Bks.—Bd. of Edu. N. Y. C.
 Final Payment to Close Account

ACCT. NO.
DATE

School Savings Bank

Of
Borough

I have this day received the sum of _____ dollars from the above school bank, the same being the balance due on my account. I hereby acknowledge this statement as a **Receipt in Full**, of this account and in consideration thereof release the above bank from all further claims in connection with this account.

Depositor

\$
Class
Room

FIGURE 15. RECEIPT ON CLOSING ACCOUNT

School savings banks in greater New York City. — The magnitude of the school savings in New York City can be grasped from the following interesting facts: From February 1, 1924, to February 1, 1925, cash receipts were \$1,226,657.84, an increase of 27% over the previous year. From the establishment of the system in February, 1916, the gross receipts were \$4,457,336.69, of which 57% or \$2,274,590.55 was transferred to bank books in mutual savings banks in 135,829 accounts. In the year preceding February 1, 1925, 65% of the money paid out during the year was deposited in savings bank accounts; in that year there were 327,411 active accounts in 384 schools. More than \$30,000,000 is on deposit with school savings banks in this country, according to an announcement by the American Society for Thrift.

Table 6, on page 70, shows how weekly deposits grow.

On December 31, 1925, the savings banks of the country held \$24,157,909,000 in deposits belonging to 45,561,916 depositors, distributed as follows : ¹

New England States	\$ 3,897,701,000
Middle Atlantic States	9,795,074,000
Southern States	1,822,156,000
East Central States	5,716,799,000
West Central States	850,892,000
Pacific States	2,075,287,000
Total for Nation	<u>\$24,157,909,000</u>

Your second investment. — Your second investment should be the opening of a checking account in a reliable commercial bank or trust company. The advantages of a checking account are numerous. (1) By paying your bills with checks, the returned checks will be vouchers or receipts for the payments; checks made payable to a certain individual are not negotiable until signed by the payee; (2) if you pay your bills with checks, it will not be necessary for you to carry on your person considerable sums of money, a dangerous practice in these days of "hold-ups"; (3) checks are a convenient method of payment through the mail; and (4) the entries on the stubs in the check book form an account of receipts and payments; and, finally, (5) a checking account in a commercial bank will establish your credit, and give you an acquaintance with bankers, to know whom may be of value to you later, either as a prospective borrower of funds for business purposes or as advisers in your selection of investments, after you have accumulated your first thousand dollars.

Figure 16 is a deposit slip in a commercial bank. Figure 17 is a check on a commercial bank.

¹ *The Savings Bank Journal.*

FRANKLIN TRUST OFFICE THE BANK OF AMERICA ² / ₁₋₂₆ 166 MONTAGUE STREET, BROOKLYN, N. Y. NEW YORK		3 192
No. _____ PAY TO THE ORDER OF _____ THROUGH THE NEW YORK CLEARING HOUSE	\$ _____ DOLLARS	

FIGURE 17. CHECK ON A COMMERCIAL BANK

Five standard requirements. — Mr. Roger W. Babson enumerates the following :

First, safety of principal and interest. This should be fundamental. Who would deliberately place his funds where he knew they were insecure? And yet, too often, investors do not carefully scrutinize the *safety* of their ventures.

Second, good income. Of course, one wishes to receive as large a return as possible ; but the temptation to sacrifice safety to income is hard to resist. If you are offered an unusually large " yield " on your investment, you may be sure that there is some decrease of safety of principal.

Third, marketability. That means readiness with which you can dispose of the security. To some investors, the possibility of quick convertibility into cash is imperative. For that reason, they are willing to forego something of income in order to obtain certain and immediate marketability. A commercial bank, for instance, places a temporary surplus of funds in securities immediately convertible into cash. For the average investor, however, marketability is not so essential ; he can often afford to sacrifice marketability for larger return in income.

Fourth, possibility of appreciation in value. If you are willing to give the time and study necessary to operate wisely, you may possibly hope to profit in this manner. In his book, "Business Fundamentals," Mr. Babson presents the following chart which indicates the points to buy and sell, from 1897 to 1922.

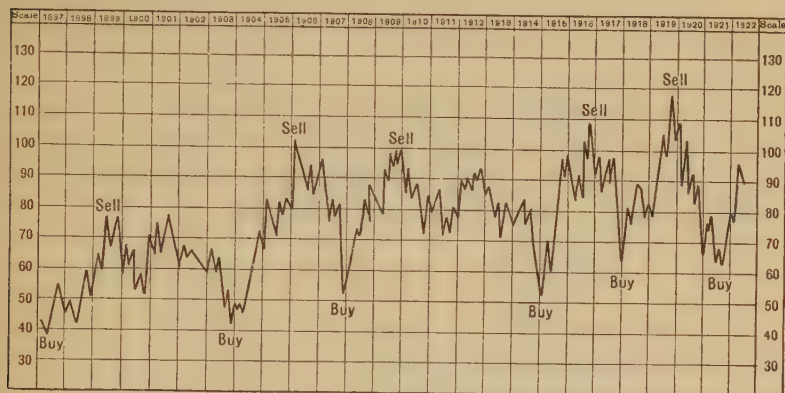


FIGURE 18. LONG SWING BUYING AND SELLING POINTS

Success in this form of speculation presupposes that the operator will faithfully study fundamental business conditions under the guidance of reliable advisors.

Fifth, stability. There is no investment which is one hundred per cent stable. Stability in value of investments is relative only. Every investment must be watched; what is safe, or what has for many years been safe, may change. Investors in New York, New Haven and Hartford stock selling at \$200 per share, found this out to their sorrow; in 1923 it sold as low as \$9 $\frac{3}{4}$.

Diversification in investments. — One sound principle of investment should be carefully observed. This principle is expressed in the old proverb — "Do not put all of your eggs

in one basket." In this connection it is interesting to recall that Mark Twain in *Puddin'-head Wilson* remarked: "I say put all of your eggs in one basket, and *watch that basket.*" However, Mark Twain's eminence was not achieved in the rôle of financial advisor.

Diversification will keep you from making several mistakes.

1. You will not put all of your funds in railroads, or in industrials, or in public utilities, or in municipals or in guaranteed mortgages.

2. You will not buy all bonds nor all stocks.

3. You will not buy only the securities of any one corporation. You will scatter your holdings among various types of securities and among different corporations.

THE INVESTOR'S GLOSSARY OF TERMS

The intelligent investor must understand the meaning of the following terms, alphabetically arranged :

"*Accrued*" or "*and interest*": The price of a bond is as quoted, say $105\frac{1}{2}$, *plus* interest that has accrued since the last interest date to day of the sale. All bonds sold on the New York Stock Exchange are sold "*accrued.*" Suppose you buy on February 1 one \$1,000 Chicago, Rock Island and Pacific general 4% bond, due January 1988, @ 84. The interest dates are "J and J," *i.e.*, 1 January and 1 July. From January 1 to February 1 is 31 days; the interest for 365 days at 4% is \$40; for one day it is .109; for 31 days it is \$3.38. You will have to pay \$840 plus \$3.38 or \$843.38 for the bond, plus, of course, the commission charged by the broker.

Bond: The promissory note of a corporation, secured by a mortgage, given to a trustee who acts for the bondholders. See specimen on page 89.

Callable or optional bonds: Bonds in which the right is reserved by the issuer to pay off at an earlier date than the actual date of maturity. A bond due in twenty years, but subject to redemption after ten years, is of this class, and would be termed a 10/20.

Common stock: That part of the capitalization of a corporation upon which dividends may be paid only after satisfying the requirements of (1) bonds and (2) "preferred stock," if any; as a rule, it represents the speculative ownership in a corporation. At times, however, the earnings of a corporation are so large that the common stock receives much larger dividends than the preferred, and, in consequence, it sells at higher prices; for instance, Union Pacific, 4% preferred sells at about 75, when its 10% common sells for about 140. See page 92.

Coupons: Little interest notes, payable to bearer, and treated by the owner of a bond like a check to be deposited in his bank for collection a few days before due. An illustration will be found on page 90.

Cumulative — non-cumulative: This has reference to preferred stock. Unpaid dividends upon such stock accumulate from year to year, and must be paid before the common, or other stocks which come after, can receive anything. A cumulative issue often acts to the detriment of the common shares as it naturally lessens the chances of dividends upon them. A good illustration is that of the International Paper Company preferred and common stock. The company was incorporated in 1898; the 6% preferred stock paid $4\frac{1}{2}\%$ in 1898; 6%, 1899–1907; 4% in 1908; 2%, 1909–1915; in 1917, 6% regular and $33\frac{1}{2}\%$ back dividends; 6%, 1921 to date; while common received 1% in 1898 and 2% in 1899,

and none since. In 1925 the preferred sold at about 75 and the common at about 50.

Denomination: The face value of a bond. Most bonds are issued in denomination of \$1,000, although the \$500 and \$100 denominations are not uncommon. Our Government bonds are sometimes issued in \$50,000 pieces.

Ex dividend: Dividends off. The sale of a stock with the agreement that the dividends about to be paid shall not go to the buyer; or that the buyer of a stock is not entitled to the next dividend. When a company declares a dividend, it usually fixes a day after which its transfer books shall be closed. From this time, until the books are again opened, no transfers can be effected.

Flat: Without interest. The opposite of "accrued." Defaulted bonds are sold "flat."

Guaranteed bonds: These bonds are guaranteed as to principal and interest, or as to principal alone, or as to interest alone. Large corporations may guarantee the bonds of a smaller one. This guarantee may or may not mean anything. If a bond is not good without the guarantee, probably it is not good with it; for ways can be found to escape liability by the guaranteeing company if it so desires.

Par and no par: The size of one share of stock is called *par*. If the capitalization of a corporation is \$1,000,000, the number of shares will depend upon the size of one share, or the *par*. If *par* is \$1, there will be one million shares; if *par* is \$10, there will be one hundred thousand shares; and if *par* is \$100, there will be ten thousand shares. In case the stock has "no *par*," the number of shares is determined with no nominal value for a share. The practical importance of *par*

is that without knowing its par it is impossible to say whether a given stock is selling high or low; for instance, Pennsylvania Railroad stock may be selling @ 62. You might think it a low price when you learn that New York Central is selling for 117. But New York Central pays 7% and its par is 100 while Pennsylvania pays 6% and its par is 50. Pennsylvania is really selling at 124. (See pages 92 and 93.)

Participating — non-participating: A preferred stock is entitled to a dividend at a certain rate, say 7%, and then the common has a claim for a certain per cent, say 7%. If conditions warrant paying more than these two 7% dividends, the "participating" stock shares equally with the common.

Preferred stock: It may have a claim upon profits prior to that of common stock; it will then be preferred as to dividends; it may have a preference in claim on assets in case of dissolution of the corporation; it will then be preferred as to assets; or it may have both preferences. See page 93.

Principal of a bond: The amount of the bond which the debtor promises to repay; the sum loaned.

Registered bond: Registered bonds are of two forms: *First*, registered as to both principal and interest; *second*, registered as to principal only. A registered bond has the name of its owner filled out on its face or its back; it cannot be transferred from one person to another without indorsement upon the back by the party in whose name it is registered, and sending it to some designated office for transfer, the same as a share of stock. A new bond will be issued to the holder and made out in his name. In the case of a bond registered as to both principal and interest, the bond bears no interest coupons, but the interest is mailed, as it matures,

directly to the bondholder. In the case of a bond registered as to principal only, the principal sum is registered, and to be collected, the bond must be indorsed and forwarded to the proper authority.

The reason for registration is primarily for safety, for loss or theft of the bond will cause inconvenience only; the registered bond is of value to no one but the party in whose name it is registered; but the sale of registered bonds is attended with the inconvenience of having them *un*-registered; hence, registered bonds usually sell at a lower price than bonds with coupons attached. See page 90.

Sinking fund: A certain sum regularly set aside by the debtor for the payment of the principal of the bonds; the bonds to be redeemed may be drawn by lot or the entire amount may be paid at the time of maturity. If redeemed so many each year, they are called *serial* bonds. In the case of mining and oil companies, sinking funds are indispensable. For illustration, see page 89.

Stock certificate: The ownership of "stock" is represented by a printed, lithographed, or engraved form, properly filled in, sealed and signed by the proper officers, giving the owner's name and the number of shares of stock it represents. For specimen, see page 92.

Stock dividend: Issuing new stock pro rata to those who already hold stock in the same company, the new stock to be the equivalent of profits earned by the corporation but which are retained by the corporation as additional capital rather than paid in cash to the stockholders.

Trustee, mortgage, and legal opinion: When a corporation desires to borrow money by the issuing of bonds, there must be some party to act in the common interest of both the

lender and the borrower; trust companies usually act as "trustee" of a mortgage securing an issue of bonds.

A mortgage is an instrument signed, sealed, and given by the borrower to the lender, or to a third party who holds it as trustee for the lender, by which the latter has the right to possess himself, by following proper legal formalities, of property described in the instrument, in case the borrower does not meet his indebtedness as set forth in the conditions agreed to at the time of creating the debt.

Legal opinion is a statement of some responsible firm of attorneys that they have examined the papers and found that they are properly drawn.

Yield: The proportional rate which the income from any investment bears to the total cost of that investment, interest excepted, and in the case of bonds, taking into consideration the time which the investment may be outstanding before being paid off.

Stocks are usually figured as perpetual. If a stock sells at \$200 and pays 8% dividends annually, the ratio of the dividend, \$8, to the total cost, \$200, is .04, or in other words, the net return, or the yield, is 4%.

Bonds usually have a fixed date of maturity, and the problem is more complicated; special bond tables are in use to which investors can turn to ascertain what the net return is upon an investment of this kind. Take a bond bearing 5% interest with exactly ten years to run before maturity. If it is sold @ \$108.18, or \$1,081.80 for a thousand dollar bond, the net return or the yield is 4% per annum, *i.e.*, 4% on the entire sum invested, \$1,081.80. The bond costs \$1,081.80, but at the end of ten years the holder will receive only \$1,000. In the meantime he will receive \$50 yearly in interest. All of the \$50 should not be considered as income, for a sufficient

amount of it should be set aside each year to liquidate the \$81.80 premium paid for the bond.

TYPES OF INVESTMENTS

Kinds of bonds. — The following classification of bonds will probably be found self-explanatory :

KINDS OF BONDS ¹

Bonds	Classified according to kind of security	- Mortgage on real property - Mortgage on other securities - Mere prior claim on earnings
	Classified according to evidence of ownership and transfer	- Registered - Unregistered (coupon)
	Classified according to purpose of issue	- Bridge bonds - Construction bonds - Car trust bonds - Equipment bonds - Extension bonds - Ferry bonds - Terminal bonds - Improvement bonds - Etc.
	Classified according to issuing concern	- Government — state and national - Municipal and county - Railroad, express, and steamship companies - Traction companies - Gas, electric light, and water companies - Bank and trust companies - Investment companies - Industrials - Mining companies - Miscellaneous

Guaranteed mortgages. — Among the safest kinds of investments, with a liberal return, are mortgages on im-

¹ F. A. Cleveland, *Annals of the American Academy of Political and Social Science*, XXX, 400-411.

Policy No.

LAWYERS

Title and Guaranty Company

160 BROADWAY, NEW YORK CITY

The **Lawyers Title and Guaranty Company**, (hereinafter termed "the Company"), in consideration of the premium and terms of guarantee named below, hereby guarantees to

Address:

and to such legal representative, successors or assigns of the above as shall present to the Company satisfactory proof of ownership of this policy and of the bond and mortgage described in Schedule A, (all of whom are herein designated as "the assured").

First: Payment of interest at the rate of _____ per cent. per annum, subject to such deduction for Income Tax as may be required by law, computed from _____ 192____ within five days after the same shall have become due under the terms of said bond and mortgage upon the amount of the principal sum hereby guaranteed at any time outstanding until said principal sum shall be wholly paid.

Second: Payment of the principal sum of _____ dollars secured by said bond and mortgage as and when collected, but in any event within eighteen months after payment shall be demanded by the assured provided such demand be made after said principal sum shall have become due under the terms of the said bond and mortgage.

In Witness Whereof, the corporate seal of the said Company is hereunto affixed this _____ day of _____ in the year one thousand nine hundred and _____

Vice-President.

Secretary.

FIGURE 19. GUARANTY POLICY



FIGURE 20. PARTICIPATING CERTIFICATE

proved city property having back of them, *first*, the security of income-bearing real estate and, *second*, the guaranty of principal and interest by a title and guaranty company.

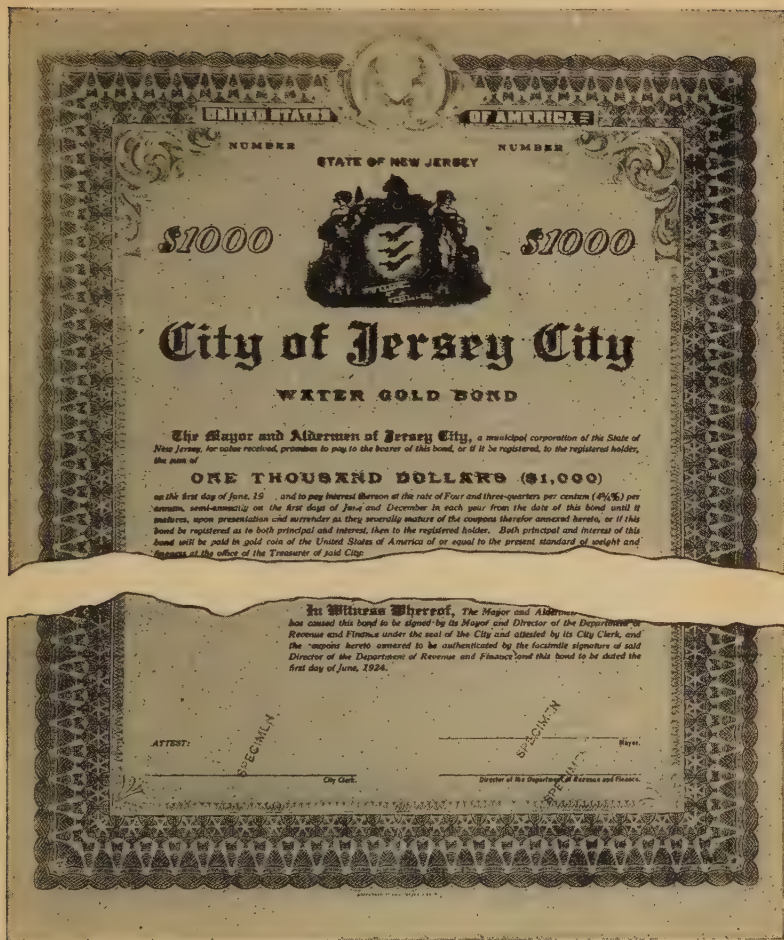


FIGURE 21. A SERIAL BOND WITH INTEREST AT 4%

At the present writing these can be procured netting $5\frac{1}{2}\%$ interest.

If you can raise the entire amount loaned on a piece of property, the note and mortgage will be turned over to you,

together with a policy of the company guaranteeing payment of principal and interest.

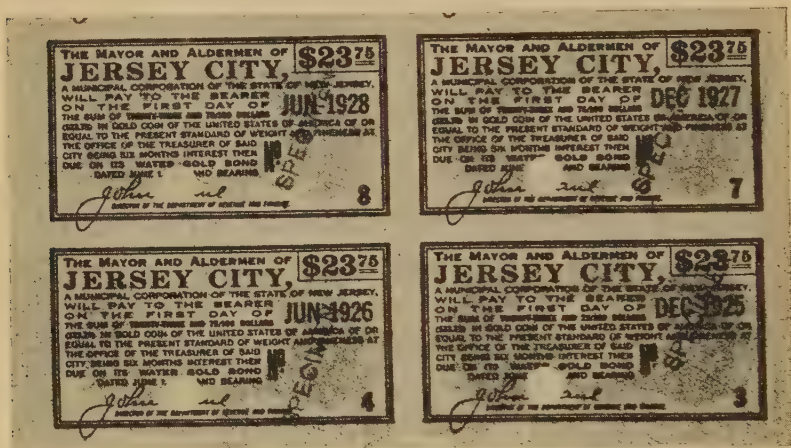


FIGURE 22. COUPONS ATTACHED

If you cannot handle so large an amount, one of their participating certificates in denomination of \$50, or whatever

This bond may be registered in the holder's name in a book of The Trust Company of New York which shall be kept in the office of the Trust Company Bank, New York, and such registration shall be noted on the bond, after which no transfer shall be effectual unless it is made of record in the book and noted on the bond, but the same may be discharged from registry by being so transferred to another after which it shall be transferable by delivery, but may be again, and from time to time, registered as before. The coupon shall be payable to the bearer's name, notwithstanding the registry of this bond, unless the coupons shall be surrendered, in which case the interest shall be paid to the registered holder.

DATE OF REGISTRY.	NAME AND ADDRESS OF REGISTERED OWNER	TRANSFER AGENT

FIGURE 23. REGISTRATION BLANK ON A BOND

sum you can spare, is an excellent investment. In this case, the company holds the papers and acts for you. In either event, the interest check is mailed to you semi-annually.

Figure 20 is a participating certificate.

Various kinds of securities. — Figure 21 presents a serial bond which nets $4\frac{3}{4}\%$. Figure 22 are the coupons attached.

Figure 23 shows the blank on a bond which is used for registration.

Figure 24 is a certificate of common stock.

Figure 25 is a certificate of a 7% cumulative, participating stock, preferred as to both assets and dividends; par \$100, redeemable at 120.

EXERCISES AND PROBLEMS

I

1. How can you be thrifty in the use of your possessions?
2. What is the "make-work" fallacy? How is it connected with thrift?
3. Why do we call Cleopatra and Alcibiades unthrifty?
4. Why is the miserly uncle a better citizen than the free-spending nephew?
5. What is a budget? What are the advantages in keeping a personal or family budget?
6. Will you personally try to keep account of your income and expenditures in a book similar to the *Money Book for Boys and Girls*?
7. What are the four steps in making a personal or family budget?
8. What agreement as to family money affairs should a young married couple make *before they marry*?
9. Why should your mother be interested in family budgets? Will you explain to her the importance of family budgets?
10. Repeat the new "golden rule."
11. Name the three steps necessary in "saving money."
12. Why do shrewd business men lose so much money in their "investments"?



FIGURE 24. A CERTIFICATE OF COMMON STOCK

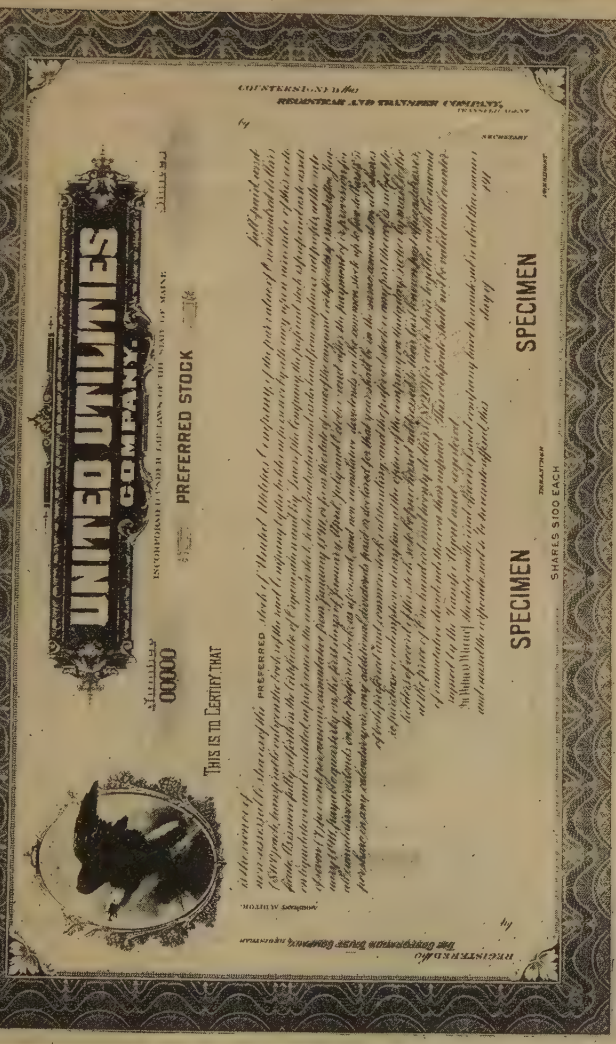


FIGURE 25. A CERTIFICATE OF PREFERRED STOCK

13. What are the four types of security purchasers? To which should the beginner attach himself?

14. What should be your first investment? Why? Your second investment? Why?

15. Have you a school savings bank in your school. If so, are you a depositor? If you have none, will you try to interest your principal and teachers in starting one?

16. What are Mr. Babson's "five standard requirements" of a good investment? Can you have them all at once? Which, if any, would you be willing to sacrifice?

17. Make a list of the written terms in the Investor's Glossary of Terms. Close the book and see how many you can define.

18. On page 86 is the expression "to liquidate the \$81.80." What is the meaning, in this connection, of the word "liquidate"?

19. What are the different bases of classification of bonds? Close your book, and enumerate as many of the items under each classification as you can recall.

20. What are our "public utility corporations"?

21. What is a guaranteed mortgage? What is a "participating certificate"?

22. What is a serial bond? stock with no par? cumulative, participating, preferred stock?

23. What is a preferred stock "retirable @ 105"?

24. What is the difference between a "gold bond with coupons attached" and a "coupon gold note"?

25. What is meant by the "registration" of a bond?

II

1. Using the models on page 63, construct for yourself a tentative budget, having special regard to the scale of prices prevalent in your own community.

2. Re-read the "Five Standard Requirements" on page 78.

(a) If your mother had \$10,000 to invest, on the basis of these requirements, what type of investments would you advise her to make?

(b) If you are the cashier of a savings bank, and the bank wishes to invest \$250,000, what type of investment would you recommend to your board of directors?

(c) If you are the cashier of a large trust company, and you have \$1,000,000 of funds for a short period, what type of investment would you select?

(d) If you have accumulated \$1,500 in your savings bank account, and are looking for an investment that will net you more than the savings bank rate of interest, what kind of security would you select?

III

1. Loafing on unearned money is an economic crime; the son of a rich man is no more entitled to leisure than the son of a poor man. Wealth in the hands of the individual is a trust which cannot rightfully be employed in support of idleness. Discuss.

2. "We confidently expect these stocks will work higher and believe you will make no mistake in taking as many units as your funds will permit."

(a) Is there any guarantee here of a rise in price?

(b) If the stocks declined, would the brokers be responsible for any loss?

3. "The facts contained in this circular, while not guaranteed, are taken from sources we consider reliable." A statement to be found in every advertisement of stocks and bonds. Why is this statement placed in the advertisement?

4. "At its present price this stock possesses unusual speculative possibilities." What is meant by "speculative possibilities"?

5. "In the first place, get it out of your head that there is any such thing as 'safety of principal' in stocks, common or preferred." Why is this true?

6. During the year 1921 a firm suffered a loss of more than \$16,000,000. The price of the stock declined from 243 in August, 1919, to 62 in February, 1922. On what does the market price of a stock depend? Is there any certainty of dividends on stock?

7. The relationship between the yield on bonds and the rates for money has led observers to watch the movement of the investment market attentively for signs of the trend of money conditions.

(a) What is the relationship referred to?

(b) What is meant by "movement of the investment market"?

8. The yield basis upon which new securities were offered declines rapidly in the later months of 1921.

(a) What is the yield basis? (b) Why did this decline occur?

9. In the market for investment securities the effects of the larger supply of money were manifested in the sale of bonds, which continued very active and at higher prices.

(a) Why did the larger supply of money lead to the increased sale of bonds? (b) Why did the bonds sell at a higher price?

10. A budget amounts to nothing when the currency drops one half in value within a week. Why?

REFERENCES FOR FURTHER STUDY

The subjects of thrift, budgets, and investments have not been treated adequately by the text books in Economics.

For the further study of investments, see:

BABSON, *Business Fundamentals*. Forbes.

CARRET, *Buying a Bond*. Barron's.

CARVER, T. N., *Principles of National Economy*. Chapter XIII.

CHAMBERLAIN, *The Principles of Bond Investments*. Barron's.

CROWELL, *Dictionary of Business and Finance*. Barron's.

FAY, *Economics Note Book*, Lessons VI, VII. Oxford Book Co.

HAMILTON, *Stock Market Barometer*. Harper.

HUEBNER, *The Stock Market*. Barron's.

JOHNSON, A. S., *Introduction to Economics*, Chapter XVIII.

KIRSHMAN, *Principles of Investment*. Barron's.

MOODY, *How to Invest Money Wisely*. Moody.

VAN STRUM, *Investing in Purchasing Power*. Barron's.

WILLIAMSON, *Readings in Economics*, Chapter XXXV.

BULLOCK, *Selected Readings in Economics*, 1907, Chapter XI.

See Classified Bibliography, titles, *Investments*, *Speculation*.

PART III

DEPARTMENT OF PRODUCTION

V note

CHAPTER IV

THE ENTREPRENEUR AS AN AGENT OF PRODUCTION

Definition of production. — Production is the complement of consumption ; it is, so to speak, the other side of the shield. Without consumption there would be no production. The purpose of the producer is to satisfy the wants of the consumer ; the object of production is consumption. It should be clear, then, that the mainspring of all industrial activity, its *raison d'être*, or its reason for being, is the satisfaction of human wants.

To start with, we are all consumers ; our wants must be satisfied ; they are satisfied by commodities and by personal services. The process of providing the commodities and the personal services that satisfy human wants we call production. Accordingly, our definition of production is *the making or the doing of anything that satisfies a human want*.

Agents and factors of production. — The process of production, in this day and generation, is not like a game of solitaire ; it is not played alone. Literally speaking, it is a coöperative enterprise. There are five distinct agents who work together and make their respective contributions to production :

1. The entrepreneur supplies responsible supervision and management and bears the risk — he is the central and moving force of the entire process.

2. The land owner supplies land and raw materials.

3. The laborer supplies labor.
4. The capitalist supplies capital goods, and
5. The community, represented by the government, regulates and protects business and industry.

AGENT	FUNCTION	REMUNERATION
1. Entrepreneur	Organizes, directs, and bears risks.	Profits
2. Land owner	Furnishes sites, raw material and productive power.	Rent
3. Laborer	Performs the work.	Wages
4. Capitalist	Furnishes buildings and machinery, tools, implements, and materials for work (capital goods).	Interest
5. The Community	Regulates and protects through government.	Taxes

The entrepreneur. — Who is this individual, the *entrepreneur*, thus disguised by a French word? You are perfectly familiar with him, but possibly you do not recognize him, decked out in his foreign suit of clothes.

The word *entrepreneur*, literally, means undertaker. The connotations of that word are too lugubrious for general use. Because of the popular meaning attached to the English word, *undertaker*, it has become, as the French say, *impossible*. "*Impossible est tres bon française.*" In this connection, early writers were wont to use the expression, *merchant adventurers*. But that term, too, is objectionable; it suggests that business enterprisers are out on a buccaneering expedition, which is contrary to the facts of the case. Consequently, we have taken over into the English language, bodily, the French word, *entrepreneur*, to designate the person or persons who undertake an enterprise. And it

is no small undertaking. The functions performed by the entrepreneur are various and important.

In meditating one day it occurred to the author that, of course, *the most important factor in business must be the business man*; when economists speak of the entrepreneur, they mean what is popularly known as the business man. What does the entrepreneur do of so much importance that we consider him the center of the entire productive process? He directs the affairs of the enterprise. No one disputes the statement that the captain is the most important personage on ship board; *the entrepreneur is the captain of the industrial ship*; it is his function to bring it safely into the harbor of financial success.

Duties of the entrepreneur. — His duties are very specific.

1. It is he who “ hires and fires ” the laborers; in his view, labor is perhaps the most expensive item in the cost of production; naturally, he must keep down this cost, as he must keep down all items of expense, to the lowest possible level.

2. The entrepreneur assembles the capital goods. What are capital goods? Later, we shall discuss, in detail, that question. At present, it is sufficient to note that the entrepreneur provides the buildings, the machinery, and the raw material needed in the business.

3. He, also, procures the land upon which the enterprise is to be conducted; he may either negotiate a lease with the landlord or he may purchase the land outright.

4. Some one must deal with the government, procure licenses and permits, pay duties and taxes, and arrange for official inspection; the entrepreneur performs these services.

5. A commodity is not fully “ produced ” until it is in the hands of the consumer; marketing the goods is an essen-

tial and the final step in production ; it is the entrepreneur who has supervision over this.

6. In every business undertaking, large or small, there must be some one, or some body of persons, to whom questions of business policy are submitted for determination. On the proper solution of these problems success or failure depends. It is the entrepreneur's decision in these cases which is final.

7. The future is uncertain ; it is so uncertain that no person can be absolutely sure that he will be alive to-morrow ; no business man can be certain what will happen in the future ; and yet, success depends upon a correct forecast of future conditions of demand, supply, and price. It is the part of the entrepreneur to plan for the future of his business ; he is the risk bearer.

8. Often, the responsible head of a firm has put into it his own capital funds ; if so, he is owner as well as the directing head.

Forms of business organization. — As you walk along a busy thoroughfare in the business sections of your home town, you pass by some stores (1) that are owned by a single proprietor, (2) others that are in the names of partners, (3) and still others are owned by corporations. These are the three most familiar forms in which business of various kinds is organized, although we also have (4) some instances of coöperative production and (5) others of government production.

THE SINGLE ENTREPRENEUR

What is the single entrepreneur form of organization? — The simplest form of business organization is that in which *one individual assumes responsibility for the management of the business*. Thus the farmer employs his hired

man; he carries on the business alone for himself; he is master of his own time and that of his men; he markets his own products; the gains of the business are his, and the loss, if any, is borne by him. This type of organization is found in many other comparatively simple businesses, such as that of the village blacksmith, the grocery store of the country town, the small restaurant, and the delicatessen.

Professional men, such as physicians, lawyers, and writers, are usually independent entrepreneurs; in these cases, little or no capital is employed, and the activities partake mostly of the nature of labor. Among single entrepreneurs, the functions of capitalist, entrepreneur, and frequently laborer are often centered in one individual.

Advantages of the single entrepreneur. — (1) All profits are his, and (2) the single entrepreneur is thus stimulated to do his best. (3) He is his own "boss." (4) Another great advantage enjoyed by the single entrepreneur is that his business is transacted on such a small scale that it is possible for him personally to know his employees and to come into personal relations with them.

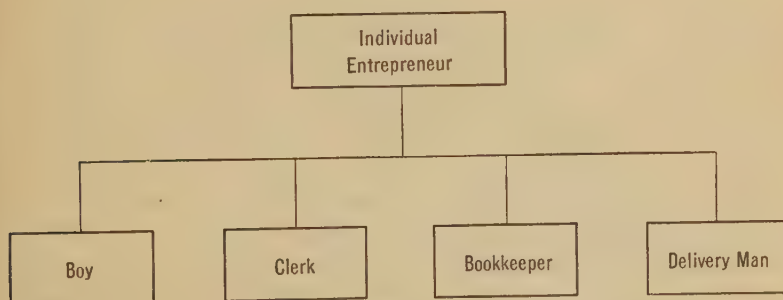


FIGURE 26. ORGANIZATION OF A BUSINESS OWNED AND OPERATED BY A SINGLE ENTREPRENEUR

The disadvantages of the single entrepreneur. — These are (1) the lack of capital funds, (2) the limited field of operation, and (3) the disaster that may follow errors of judgment on the part of the entrepreneur.

Figure 26 illustrates how a small grocery store might be organized.

THE PARTNERSHIP

What is a partnership? — It is often desirable for several individuals to combine their resources and abilities in a single enterprise. The simplest form of such association is the partnership, which may be defined as *an association of two or more individuals for the conduct of a business enterprise based upon an agreement or contract between them.*

Sometimes there are “silent” partners, who simply invest their capital funds in the enterprise, leaving the management to the active partners. These silent partners are capitalists rather than entrepreneurs.

The advantages of a partnership. — (1) The quantity of capital which one individual can command, either from his savings or by borrowing on his own credit, is compara-

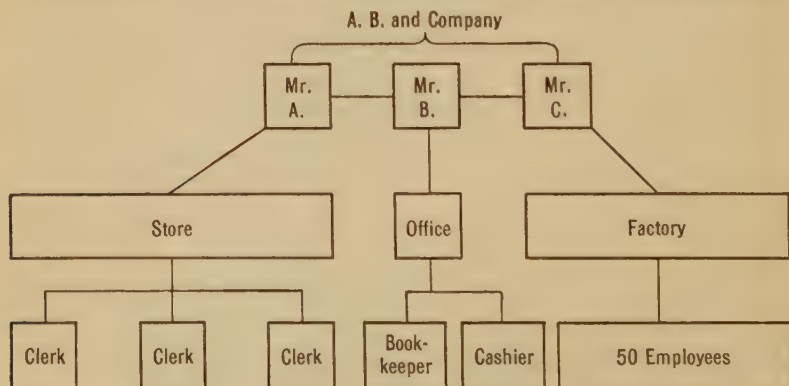


FIGURE 27. ORGANIZATION OF A BUSINESS OWNED AND OPERATED BY A PARTNERSHIP

tively small, but "in union there is strength," and larger capital funds results from pooling their resources and their credit by several individuals. (2) Each partner, too, can take charge of that part of the business for which he is personally best fitted. (3) In the partnership, personal relations between employer and employee are still possible, with all of their advantages.

The disadvantages of a partnership. — (1) The most serious is unlimited liability. Suppose that A, B, and C form a partnership to manufacture and sell paint, and the firm goes into bankruptcy, with debts amounting to \$50,000 more than the assets. Creditors can bring suit for any part or all of that amount against A, B, or C, and the entire sum may be collected from any one of them. The one who pays has a right to sue the others for their proportionate part, but if they cannot pay him, he must stand the burden alone. (2) And, too, death or retirement of a partner dissolves the partnership. (3) It is possible also that there will be continual disagreements among the partners. (4) Finally, no partner can sell his interest in the firm without obtaining the consent of each of his partners.

Some states have modified the rigors of the unlimited liability feature of partnerships. Where the amount of capital required is small, and the business is such that the management can easily be divided among the partners, the partnership is a satisfactory and common form of organization. It is especially likely to be adopted in undertakings based upon the skill, training, or reputation of a few individuals, such as lawyers, physicians, accountants, architects, and other professional men.

Figure 27 illustrates the possible form of organization of a partnership of three persons engaged in the manufacture and sale of paint.

THE CORPORATION

What is a corporation? — We are all familiar with the fact that some of the business enterprises of to-day are very large; we know, for instance, that our telephone company is a big enterprise; we know that some of the steel companies are very large; we know that the railroads serving our several communities do business annually computed in the millions.

The development of these large industrial enterprises calls for immense plants and equipment as well as a very intricate organization; these requirements have led to the necessity for a form of business organization which will permit the accumulation of even greater quantities of capital funds and capital goods and greater efficiency of organization. This is possible only by the combination of the resources of a still larger number of individuals, coupled with a limitation upon their liability, which lessens the property risk, and permits greater centralization of management than is afforded by the partnership.

The essential features of the corporation, as contrasted with the partnership, are (1) the greater number of individuals who partake in the enterprise, (2) the limited liability of the stockholders, (3) the delegation of management to the board of directors, (4) the transferability of ownership in the corporation, and (5) the perpetuity of the life of the corporation.

As the result of these features, corporations have shown a tremendous growth in numbers since the Industrial Revolution; and to-day they are the dominant form of business organization in manufactures and in all large industries.

The law recognizes two kinds of persons, natural and artificial. Every human being is a natural person. A cor-

poration is an artificial person; and it may be defined as a group of persons (known as stockholders), acting, under a charter from the State, as a single person in the conduct of a business enterprise. In numbers, the stockholders cannot be less than three; in many cases they are counted in the hundreds of thousands. It is a mistake to imagine that the great corporations are owned by a few rich men; the facts are otherwise; they are owned by many thrifty people.

Ownership of corporations. — For example, on December 31, 1924, Class I railroads were owned by 699,552 shareholders; recently, the Pennsylvania Railroad had 135,000 shareholders and 250,000 employees; the United States Steel Corporation had 150,000 shareholders and 260,000 employees; Swift & Company, meat packers, had 45,000 shareholders and 42,000 employees, 16,000 of whom were also stockholders.

The corporation which has exceeded all records in this particular is the American Telephone and Telegraph Company. The following figures indicate the wide distribution of the stock on December 31, 1925:

345,649 shareholders held less than 100 shares each.

16,094 shareholders held from 100 to 1,000 shares each.

Of the holders of less than 100 shares each, it is true that 130,878 held 5 shares or less each, and 291,081, or 80% of all holders, held 25 shares or less each.

The total par value of stock outstanding on December 31, 1925, was \$921,597,500, for which the company

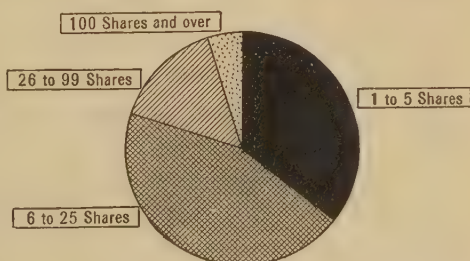


FIGURE 28. DISTRIBUTION OF SHAREHOLDERS OF THE AMERICAN TELEPHONE AND TELEGRAPH COMPANY, BY SIZE OF HOLDINGS

had received over \$965,000,000, the difference being capital stock premiums, which have gone into the company's surplus as a part of the equity behind all the stock.

The number of American Telephone and Telegraph Company stockholders has grown from 7,500 in 1900 to 362,200

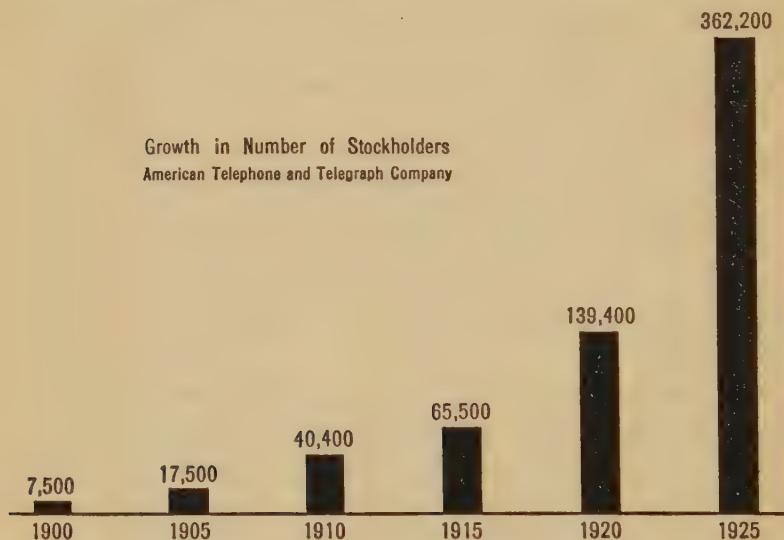
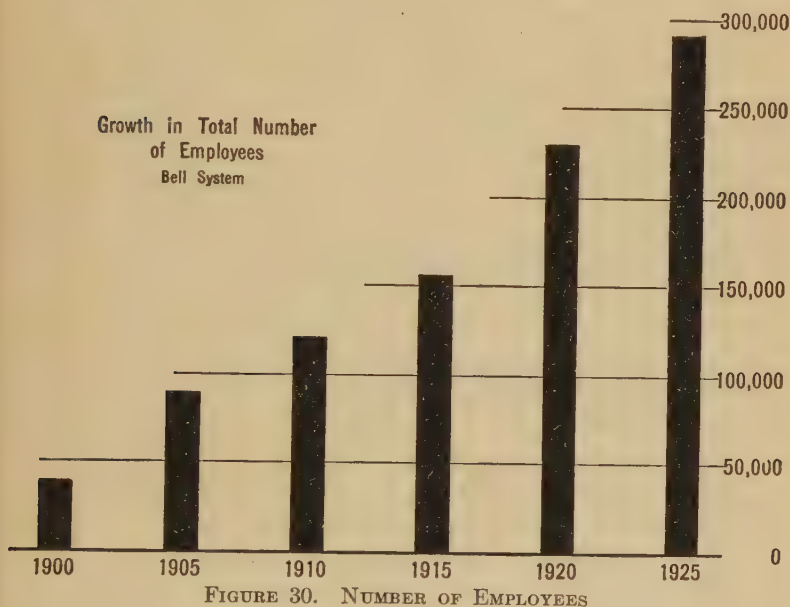


FIGURE 29. NUMBER OF STOCKHOLDERS

at the close of 1925. During the latter year there was an increase of 16,713 stockholders. Of all corporations in the world, this company is first in the number of its stockholders. The average holding now is only 25 shares, as against 76 shares in 1900. No other corporation has its shares so widely distributed geographically.

About one sixth of the stockholders of record are Bell System employees of the system. In addition, more than 160,000 employees of Bell System companies and their subsidiaries are now paying for stock in installments under

the employees' stock plan. Among the preferred stockholders of three of the Associated Companies, there are 1,249 bankers, 10,700 clerks, 21,600 housewives, 24,317 laborers, 2,700 physicians, 3,000 teachers and 4,100 stenographers.



Since the war there has been a general movement to encourage wage earners to become shareholders and investors, but the extent to which it has succeeded is less obvious. Mr. R. S. Binkerd estimates that since 1918 our corporate enterprises generally have added 3,500,000 stockholders to their lists, of which 500,000 are employees, 1,000,000 are customers, and 2,000,000 are investors drawn from the general public. At the same time savings bank depositors increased by 28,000,000 and their deposits by \$9,757,000,000. Bond-

holders have increased by 2,500,000, farmers interested in coöperative enterprises by 1,800,000.

TABLE 7

NUMBER OF STOCKHOLDERS

Industries —	1918	1925
Railroads	647,689	966,170
Express and Pullman	12,956	23,779
Total railroad and allied service	660,645	989,949
Street railways	275,000	550,000
Gas, electric light and power companies	1,250,000	2,611,279
Telephone and telegraph	107,033	371,604
Packers	65,000	100,000
10 oil companies	23,502	161,179
5 iron and steel companies	130,923	223,149
10 high-grade miscellaneous manufacturing and distributive companies	25,002	44,339
Total	2,537,105	5,051,499

Disadvantages of the corporation. — The disadvantages of the corporate form of organization are manifest. 1. The first danger is that of over-capitalization. A share of stock usually represents, nominally at least, the investment of a certain amount of money, specified on its face. This is its par value. The total par value of all its stock is called its capitalization. A company which has issued stocks to the amount of ten millions of dollars is said to be capitalized at that figure. But if this capitalization is greater than the amount of its wealth, the company is said to be *over-capitalized*, and the excess is known as *watered stock*.

2. A second, and a serious, disadvantage of the corporate form of business organization is the impossibility of any personal relations between owners and employees. If a corporation has 200,000 owners, scattered over the whole world, and 250,000 employees, it is a physical and legal impossibility for any personal relations between them to

exist. If you happen to own ten shares of American Telephone and Telegraph, just try to establish "personal relations" between yourself and these employees; enter one of the company's offices; pick out a particular worker; try to "boss" him or her, and watch results! It is very rare that you hear of a strike against a single entrepreneur or against a partnership; practically, all strikes are against corporations. *The personal relationship has been lost.*

3. Sometimes, too, it happens that *the interests of the small stockholder are sacrificed by those in control of the corporation*; this happens because a shareholder in a corporation has few privileges; (a) he may receive such dividends as the board of directors may vote him out of the profits made by his company; (b) he can vote for members of the board in person or by proxy. In practice, he does not and he cannot attend the meetings of the stockholders, to vote in person; he exercises his right of franchise, if at all, by proxy.

The following is a typical proxy blank; please study it.

THE NORTH AMERICAN COMPANY

PROXY

Know all Men by these Presents :

That the undersigned stockholder of The North American Company hereby constitutes and appoints Frank L. Dame, Edwin Gruhl and Henry H. Pierce, and each of them, the true and lawful attorneys, agents and proxies, or attorney, agent and proxy, of the undersigned, with full powers of substitution and revocation, for and in the name, place and stead of the undersigned, to vote upon, and act with respect to, all the shares of the Capital Stock of said Company standing in the name of the undersigned, at the Annual Meeting of the Stockholders of said Company, to be held at the

other; instead, they become rivals and seek to hinder rather than to help each other.

Recent action of the Western Electric Company is evidence that large business enterprises recognize this weakness. This corporation is the manufacturing unit of the Bell Telephone System; whatever is needed by the telephone system in way of material, such as telephone sets, wire, poles, etc., is furnished by the Western Electric. It has also developed a large business with other corporations and the public; this outside business or "selling end" was a "department" only. As such, it found that it was hampered by that form of organization and, in consequence, the "selling end" of the Western Electric has been made into a separate corporation known as the Graybar Electric Company. It is now independent in its management.

Thus we can see that, although corporations serve a useful part in the present industrial field, they have given rise to serious problems.

Organizing a corporation. — Let us suppose that our partnership engaged in the manufacture and the sale of paint

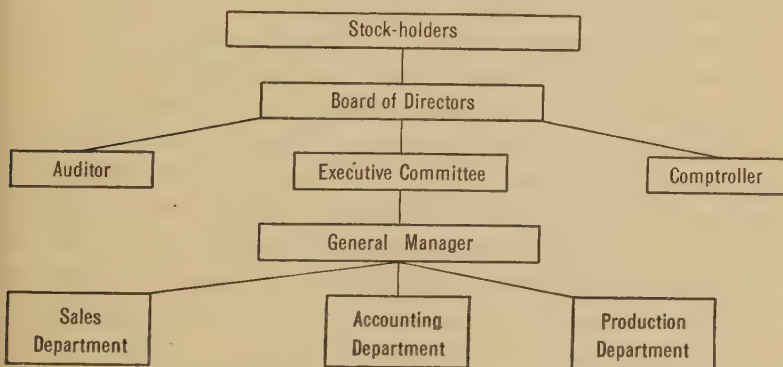


FIGURE 31. ORGANIZATION OF A BUSINESS OWNED AND OPERATED BY A CORPORATION

has been very successful; they see great possibilities ahead if they can command more capital; accordingly, they incorporate their business, at a greatly increased capitalization, attracting a large amount of capital, and, then, they proceed to expand their business. It will be necessary to reorganize the business now in the form of a corporation.

Figure 31 illustrates a possible form which the new organization may take. The three partners are now replaced by the stockholders; the management is now vested in the board of directors, who delegate the active supervision of the business to an executive committee, consisting of the three original partners; and while the committee has general oversight, the actual attention to details of the business is assigned to a general manager who, in his turn, controls the store, which now becomes the sales department; the office, now become the accounting department; and the factory, now become the production department. Two new officials appear, both responsible directly to the board of directors, namely, the auditor, who has general charge of the finances of the corporation, and the comptroller, who is charged with the control of the disbursements of the corporations.

Where, in a corporation, is the entrepreneur? — If you have been studying the corporation, thoughtfully, perhaps you have already been wondering what has become of the entrepreneur in this complicated form of business organization. You may be sure that he has not disappeared; somewhere in every corporation, large or small, the functions of organization and risk bearing are being performed. In the corporation, the principle of "division of labor," which we shall later study, has operated and it has segregated or scattered the entrepreneur functions.

The management, we have seen, is intrusted to the board of directors, who may, in turn, delegate most of their work to

an executive committee; and that committee, in its turn, may hand over the actual oversight of the business to a general manager, or to other paid officials, while the risks of the undertaking are borne by the stockholders; they are certain to be the ones who bear the risks, in case of loss; in case of gains, they may or they may not reap the reward.

TABLE 8

NEW INCORPORATIONS: AUTHORIZED CAPITAL OF NEW ENTERPRISES
CHARTERED IN THE UNITED STATES WHOSE AUTHORIZED CAPITAL
EQUALED OR EXCEEDED \$100,000¹

CALENDAR YEAR	AUTHORIZED CAPITAL	CALENDAR YEAR	AUTHORIZED CAPITAL	CALENDAR YEAR	AUTHORIZED CAPITAL
	<i>1,000 dollars</i>		<i>1,000 dollars</i>		<i>1,000 dollars</i>
1907 . .	2,545,053	1913 . .	2,191,659	1919 . .	12,678,830
1908 . .	2,059,184	1914 . .	1,581,418	1920 . .	14,999,044
1909 . .	2,465,507	1915 . .	2,061,348	1921 . .	7,959,141
1910 . .	2,869,073	1916 . .	3,489,186	1922 . .	8,400,153
1911 . .	2,906,002	1917 . .	4,607,894	1923 . .	8,415,106
1912 . .	3,288,245	1918 . .	2,469,803		

COÖPERATION

What is coöperation?—In a very real sense, all economic life is coöperative; “no man liveth to himself,” nor does any human being make a living by himself; we make a living by serving others. That is the broad use of the term “coöperation.” By it, we mean that production is truly coöperative. In this particular connection, however, coöperation is used in a special and a narrow meaning. Here, by it, we mean *the effort of laborers to replace entrepreneurs, land-owners, and capitalists in carrying on a productive enter-*

¹ New York Journal of Commerce, based on official returns furnished by the various States.

prise; their purpose is to secure to themselves, in addition to their wages, the incomes usually enjoyed by entrepreneurs, land-owners, and capitalists.

Advantages of producers' coöperation. — Coöperative enterprises *in production* have certain *theoretical advantages*. (1) The workers are stimulated to do their best; (2) saving among workers is encouraged by the need of more capital; (3) laborers are trained in business management; and, (4) in the case of pure productive coöperation, as the laborers themselves are in control, there can be no labor problem. However, producers' coöperation, especially in this country, has in few instances been able long to overcome the many obstacles which it inevitably encounters.

In 1919, only 95 producers' societies were affiliated, in Britain, with the Coöperative Union as compared with 1,357 consumers' societies; there were only 39,331 members in the former contrasted with more than 4,000,000 in the latter; and gross sales of the producers' organizations were only £7,000,000 contrasted with £314,000,000 of the consumers' organizations.

WASTES IN THE COMPETITIVE DISTRIBUTION OF MILK¹

PRESENT SYSTEM	AN EFFICIENT SYSTEM
173 distributors, requiring services of	A single efficiency agent could render superior service with
356 men and many families	90 men
360 horses	50 horses
305 milk wagons	25 horse-drawn trucks and 6 motor trucks
2509 miles delivering	300 miles travel
62,300 quarts of milk to 45,000 homes	\$75,000 equipment of one sanitary milk depot

¹ From a statement displayed at the 1912 exhibit of the National Dairy Show Association, Chicago. The figures described actual conditions in an American city. Marshall, Wright, and Field, *Materials for the Study of Elementary Economics*, p. 911.

WASTES IN THE COMPETITIVE DISTRIBUTION OF
MILK — *Continued*

PRESENT SYSTEM	AN EFFICIENT SYSTEM
\$76,600 invested in milk-room equipment	\$100,000 buildings and real estate
\$108,800 invested in horses and wagons	
\$282,500 total investment	
\$2,000 total daily cost of distribution	\$600 estimated daily cost of distribution
\$720,000 yearly cost	\$220,000 estimated yearly cost

The economies resulting from efficient distribution besides providing better service and purer milk would permit of a saving of at least \$500,000 yearly.

Disadvantages of producers' coöperation. — These are serious. (1) Power and responsibility are not centralized; (2) the need for high-salaried experts is not recognized; (3) and there is a lack of needful capital.

Successful experiments. — 1. However, successful coöperative experiments in production are not unknown. The *Godin Familestère* of Guise, France, began in 1877 as a scheme of profit sharing, and it has not only been a success as a coöperative enterprise, but it has resulted in a successful coöperative community. In Brockton, Massachusetts, there is a promising attempt of the sort in the manufacture of shoes; and Hershey's Chocolate is engaged in a similar interesting experiment. Most attempts at *producers' coöperation* have failed. They seem unable to meet the competition of businesses organized in the ordinary way, directed by one man, or set of men, with all of the efficiency that comes from singleness of aim and undivided management.

2. Coöperative credit or banking has met with considerable success. It started in Germany about 1850. In these "credit unions," the coöperators become jointly responsible

for all of the obligations of the bank. Its funds are derived from the subscriptions for shares and the deposits of the members, and from loans by commercial banks, or, in some countries, from the government. These funds are loaned in small amounts to members to enable them to make improvements on their farms or extensions in their business. Like the building and loan associations, organized by persons of limited means, to enable them to acquire homes, which have been so successful in the United States, these peoples' banks have been highly successful in some European countries.

TABLE 9

BUILDING AND LOAN ASSOCIATIONS: NUMBER, MEMBERSHIP, AND ASSETS¹

CALENDAR YEAR	ASSOCIATIONS	MEMBERS	ASSETS (1,000 DOLLARS)	CALENDAR YEAR	ASSOCIATIONS	MEMBERS	ASSETS (1,000 DOLLARS)
1893	5,838	1,745,725	528,853	1908	5,629	1,959,579	796,999
1894	5,922	1,745,725	602,554	1909	5,737	2,029,927	860,783
1895	5,973	1,545,129	624,700	1910	5,937	2,216,912	945,569
1896	5,975	1,610,300	651,545	1911	6,113	2,355,066	1,040,308
1897	5,908	1,642,179	664,994	1912	6,273	2,516,936	1,137,601
1898	5,639	1,617,837	649,423	1913	6,429	2,836,433	1,248,479
1899	5,581	1,512,685	628,239	1914	6,616	3,103,935	1,357,708
1900	5,490	1,495,136	614,119	1915	6,806	3,334,899	1,484,206
1901	5,403	1,539,593	605,967	1916	7,072	3,568,432	1,598,628
1902	5,378	1,530,707	609,599	1917	7,269	3,838,612	1,769,147
1903	5,350	1,566,700	599,551	1918	7,484	4,011,401	1,898,344
1904	5,331	1,679,922	618,795	1919	7,788	4,289,326	2,126,620
1905	5,326	1,686,611	646,765	1920	8,624	5,026,781	2,534,320
1906	5,351	1,743,988	689,480	1921	9,255	5,809,888	2,890,765
1907	5,459	1,876,967	745,993	1922	10,009	6,364,144	3,342,531

¹ Statistical Abstract of the United States, 1923.

Since the war, several trade unions in the United States have followed the example of the Brotherhood of Locomotive Engineers in Cleveland and have organized their own banks.

3. A third form of coöperation has been markedly successful in certain instances, namely, coöperation by sellers, for example, the California Fruit Growers' Association and

the Dairymen's Leagues. In these cases, producers recognize their community of interest as against the buyers, and they unite to maintain prices. Farmers are being urged to unite, also, in selling their wheat and other crops.

During the decade (1915-1925) the total volume of business transactions carried on by farm coöperative associations has increased from \$650,000,000 to over \$2,000,000,000. The United States Department of Agriculture states that at the end of 1925 there were approximately 12,000 agricultural coöperative organizations chiefly for the purpose of selling the output. Minnesota, Iowa, and Wisconsin led with more than 1,000 associations recorded in each state.¹

In numbers, grain coöperatives now hold the leading position although in 1915 they were outnumbered by dairy coöperatives, which in both 1924 and 1925 were second in importance. Live-stock coöperatives grew from 96 in 1915 to 1,776 at the end of 1925; fruit and vegetable coöperatives have increased 50% between 1915 and 1925, while cotton coöperatives were only one half in number what they were in 1915.

4. Department stores have united in associations for the purpose of purchasing goods on a large scale, and associations have been formed by retail grocers for the same purpose.

5. Finally, in Britain, coöperative stores have met with great favor. These are examples of *the coöperation of consumers*.

In 1844, the famous Rochdale Coöperative Store was founded. The needed capital was obtained by the issue of shares of £1, par value, upon which 5% was paid; no individual could own more than two hundred shares; the prices charged at the store were the prices current in the locality;

¹ *The Brooklyn Daily Eagle*, April 3, 1926.

each owner of shares had only one vote. At the end of each quarter, any profit over and above expenses, including the 5% dividends, was divided among the purchasers from the store in proportion to the amount of their purchases. The system grew, expanded and extended.

In 1864, the English Coöperative Wholesale Society was established for the purpose of buying jointly for retail coöperative stores. Later, Scottish and Irish Wholesale Societies were established. By 1919, they had a membership of over 1,500 retail societies and gross sales of more than £115,000,000. In 1919, the English Wholesale Society had 40,000 employees and manufactured goods for sale to its retail members valued at more than £25,000,000. In 1921, it was the largest miller in the United Kingdom. The coöperative stores of Britain had a membership of 4,131,477, an aggregate capital of about £80,000,000, and gross sales amounting to £198,000,000.

Americans seem too prodigal and careless in expenditures to trouble with the small economies made possible by these efforts at coöperation on the part of *consumers*.

GOVERNMENT OPERATION

What is government operation? — The last of our five forms of business organization is that in which the community, acting through government, owns and operates a business enterprise. In scarcely any subject in Economics is there a greater diversity of views than on the subject of government operation. There seems to be no generally accepted principles by which one can determine, in a given instance, the advisability of public operation *versus* private operation of an enterprise. The question of the general introduction of government operation of all industries is

deferred to our discussion of Socialism. (See *post*, page 539.) It is in that debatable ground, between those industries that general opinion sets aside for private operation, on the one hand, and those unanimously assigned, on the other, to government operation, that we find violent controversy.

We are not now concerned with the national post office or the government printing office; the former was established because of the universal opinion that communication must be easy and cheap for all people; the latter was established because the government had so much printing to be done that it was thought desirable that it should do it for itself. Before the Civil War, several states went into rail-roading, banking, and other business undertakings, always with disastrous results.

Abroad, the nations all carry on their postal business as well as that of the coinage of metal. In many foreign countries, railroads are state-owned and state-operated. In France, the tobacco business is a government monopoly.

It is in the field of our so-called "public utilities" that such divergent views are held. Shall our water works, street car lines, electric light and power plants, telegraph and telephone lines be publicly or privately operated? That is the subject of heated controversy. Generally speaking, municipal water works are publicly owned and operated; we have the largest and best telephone system in the world, and it is privately owned and operated; as to the others, public policy, apparently, is in the process of being formulated.

The arguments by the two sides, at times, are mutually destructive and contradictory; but the debate proceeds. For government operation, it is claimed that it will bring (1) lower prices, (2) greater economy, (3) greater efficiency, and (4) less political corruption; while, in rebuttal, its oppo-

nents claim that its disadvantages are (1) higher cost of operation, (2) shorter hours for labor with higher pay, (3) that politics will completely disrupt any continuity of policy, for it will change with each political turnover, and, (4) finally, that government operation means management by politicians rather than by competent experts.

Many American cities are, at present, laboratories of economic experiment in these matters; it will be well to watch them carefully, in the hope of determining what is really the best policy.

Rapid transit in New York City. — As an illustration of the heated debate that is in progress in American cities over the question of municipal ownership and operation of public utilities, your attention is called to New York City, where the interests of millions of citizens are directly involved.

During "rush hours" the subways, elevated lines, and trolleys are crowded beyond the limits of decency, and, although the need of more subways is perfectly apparent, there has been a long-drawn-out deadlock.

The city built and it owns the subways, but they are operated by two privately owned corporations, the Interborough Rapid Transit Company and the Brooklyn and Manhattan Transit Company.

According to the contract with the city, under which the companies operate the subways, only five cents may be charged for a ride. This, the companies claim, is not sufficient to enable them to meet expenses; they point out that the price of everything they buy, both equipment and labor, has greatly increased. For that reason, they desire permission to increase the fare. This permission the city authorities will not give; five cents, they claim, is enough to meet expenses provided the operation of the roads is efficient.

Financially, the companies have not been very prosperous ; one of them was thrown into a receivership and reorganized, and the other recently stated that it could not grant the demands of its employees striking for higher wages because it would lead to bankruptcy.

EXERCISES AND PROBLEMS

I

1. Define production.
2. Why is production "a coöperative enterprise"?
3. Who is the entrepreneur? Why have we placed him at the center of the productive process? What does he do, in production?
4. Name five common forms of business organization.
5. What are the advantages and the disadvantages of the single entrepreneur?
6. Define partnership. What are the advantages of the partnership?
7. What are the disadvantages of the partnership?
8. For what classes of undertakings are partnerships well fitted?
9. Define corporation. Who own the corporations of the United States?
10. What are the advantages of the corporation in comparison with the partnership?
11. What are the disadvantages of the corporation?
12. What is a proxy blank? How is it used?
13. How, in a corporation, are the functions of the entrepreneur performed?
14. What is coöperation in production, in its broad sense? In its narrow sense?
15. What are the theoretical advantages and practical disadvantages of productive coöperation?
16. Give examples of successful coöperative banking.
17. What is a coöperative store? Why might that succeed when a coöperative factory might not?

18. What is government operation in industry?
19. What are its advantages and its disadvantages?

II

1. Make a list of single entrepreneurs, partnerships, and corporations in your vicinity.

(a) In which list are found those which employ the largest capital? The most laborers?

(b) What are the characteristics of the businesses in each list?

2. Why do fruit growers unite in marketing? Is it to the interest of consumers that they should be allowed to do so?

3. How does the motive in government industry differ from that in private industry?

4. Is government industry more or less efficient than private industry? Why?

5. Does the government operate the post office on business-like principles? Give reasons or explanations for your answer.

6. Make a list of industries usually proposed for government control or for government operation. What characteristics have they in common?

7. "What can you expect from a *soul-less* corporation?"

(a) Why have corporations been so called?

(b) Is it just? Why or why not?

III

1. Mention three forms of business organization and state the advantages of each.

2. (a) What is a corporation? (b) Name and explain its advantages and disadvantages.

3. Partners desire to incorporate their business; give the reasons that may influence them to make this change.

4. What is a coöperative store, and what are its purposes?

5. Mention four advantages and four disadvantages of economic coöperation.

6. Give five arguments showing the advantages of a municipal market.

7. The organization of coöperative societies will also be given increased impetus, and manufacturers who have been made to suffer by the refusal of retailers to take losses will be more than ever inclined to adopt systems of direct distribution.

(a) What kinds of coöperation are there?

(b) What kind is referred to here?

(c) What are the advantages and disadvantages of coöperation?

8. Show the effect of each of the following on the cost of living : coöperative combinations of farmers for the purpose of better marketing ; a better warehouse system.

9. The ultimate goal of coöperation is to create a social order in which production will be for use and not for profit, to abolish exploitation, to curb selfishness and individualism. Explain how coöperation will accomplish these ends.

10. The whole industrial organization is essentially coöperation. Explain.

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CHAPTER V

LAND AS A FACTOR OF PRODUCTION

GENERAL CHARACTERISTICS

Definition. — In Economics, many words in general use are given special meanings ; sometimes the special meaning greatly enlarges the significance of the word ; in other cases, the meaning of the word is sharply restricted.

In the case of “ land,” the meaning has been greatly expanded. It signifies much more than mere “ dirt ” ; and includes, not only the surface of the globe, but what is under ground and what is above the surface. Suppose a rich man buys five thousand acres of land in the Adirondacks. What does he own ? He will have control over a vast store of productive power. Not only does he own the solid surface on which he may erect his home, barns, and other buildings, his is the natural fertility of the soil from which he can obtain crops, but there are both above and below the surface other useful properties. In the earth he may find deposits of coal, iron, or other material he can convert to his purposes. On the land may be growing acres of standing timber, wild fruits, and other natural produce. In the woods may be deer, fowl, and other game suitable for food. Through his property may be flowing streams stocked with fish, and which, too, may be the source of water power.

Above the land are air, sunshine, and moisture, all of which condition the power of the soil to give support to vegetation

and animal life, including man himself. These properties are inherent in the land and inseparable from it ; possession of the land gives access to them ; the intending purchasers take them all into consideration ; and our laws recognize these qualities as inherent in the land itself ; they provide that ownership of land carries with it title to and control of all that is beneath, on, or above the surface. In Economics, *land may be defined as all natural resources and productive power over which possession of the earth's surface gives control.* It will be noted that land is not exactly the same as natural resources. It includes some but not all of the natural resources of a country. It excludes many forms of natural productive power which are of great assistance in production.

Steam and electricity run machinery ; the germinating powers of seeds and the reproductive powers of animals render possible the growing of plants and the breeding of animals ; the attraction of gravity, the pressure of the atmosphere, the explosibility of some chemicals are utilized in hundreds of ways in industry ; but these capabilities of nature are not included in our term " land " when it is used in Economics. They are universal natural forces, free to all men who can use them ; they are *free goods* in contrast to *economic goods*.

The importance of land. — The importance of "land" in production it is scarcely possible to exaggerate. It is the original source of all material wealth ; life itself is dependent upon it. The wealth of a nation is largely dependent upon the abundance and quality of land. A country of vast natural resources may remain poor and undeveloped because of the lack of enterprise of its people, as in the case of China ; still no people, however capable and energetic, can build up a rich and prosperous country without favorable conditions

in the land. The United States owes its prosperity, in large degree, to its 2,974,000 square miles of territory, its immense acreage of fertile agricultural soil, its rich coal, iron, oil, and mineral deposits, its forests of timber, its inland water ways, and its temperate climate.

Professor Bye thus summarizes the ways in which land is of assistance to man in production: (1) the extension and solidity of land furnish man with sites for his dwellings, factories, and means of communication; (2) the fertility of soil provides those elements necessary for the cultivation of agricultural produce; (3) the climatic environment in which land is placed constitutes an important adjunct to its fertility and general productive power; (4) the coal, iron, gold, silver, copper, oil, stone, and other mineral deposits of the earth afford useful raw materials; (5) natural vegetation found on virgin land affords timber and various raw materials and food supplies; (6) fish and game are found upon land; and (7) natural streams and waterfalls afford water power.

In so far as these contributions are owned by individuals they are economic and not free goods.

Differences in the qualities of land. — 1. Nature has not been equally lavish in endowing all land. *Lands differ in fertility or richness of their productive qualities.* (a) Some soils contain the right mixture of those elements necessary to raising abundant crops, while others are too sandy or too rocky or too clayey. (b) Some are blest with plentiful rainfall and favorable climate while others are in arid districts or in cold climates unsuited to agriculture. (c) Some lands lack mineral wealth while others contain great stores of coal, iron, etc.

2. *Lands also differ in the advantages of their locations;* these differences may be due to natural or to artificial causes.

(a) Nature provides the United States with the Mississippi River, which serves as a great highway for our commerce; she has given us certain natural harbors, such as New York, which have become centers of trade.

Land in the vicinity of New York is in great demand for office buildings and other commercial structures because its harbor has made it the center of our foreign trade.

(b) Artificial causes of differences in the advantages of location of lands are to be found in the building of railroads and highways, the growth of cities, and similar activities of men. Lands near to large cities enjoy a ready outlet for their produce, which can be transported at little expense. Such lands can be devoted to truck, fruit, and similar food products in great demand and which can be sold at relatively high prices. Lands which are near to good means of transportation have an advantage over those which are farther away.

Because of differences in (a) the inherent qualities and in (b) the locations of lands, man's labor is not equally productive on all lands. Suppose that five men of equal strength and ability, provided with the same equipment of machinery, tools, etc., each cultivate for the same length of time a separate acre of land. If these plots were of equal fertility, the quantity of wealth, say potatoes, produced by each would be equal.

As a matter of fact the five tracts of land are not of equal fertility; the cultivator on No. 1 gets fifteen bushels of

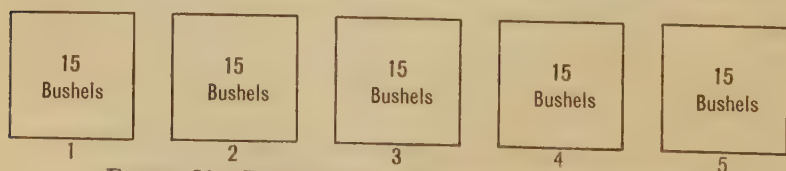


FIGURE 32. PRODUCTION ON EQUALLY FERTILE FIELDS

potatoes; the cultivator on No. 2 gets twelve bushels; No. 3 gets ten bushels, No. 4 gets eight bushels, and No. 5 gets five bushels.

Nor are the five different acre tracts equally distant from the market. Cultivator No. 1 is near by a city; he requires one man with horse and wagon to transport his produce to market while cultivator No. 5 requires two men and teams; this leaves one man less to cultivate the field belonging to the latter, and this means a reduced yield. What is true of potatoes on our five different plots of land holds true of all agricultural, mining, and other extractive and genetic industries; differences in richness or fertility and in location will cause differences in quantity of product.

This is also true of the other uses to which land can be put, such, for example, as retail trading in large cities. A plot in the center of a city is regarded as a more desirable location for a dry goods store than one in the outskirts because more business can be done per unit of labor and other productive agents employed in the central location. Suppose you own two stores of equal size and manned by an equal number of clerks, one located in the heart of New York City and the other in the outskirts of Brooklyn. Possibly ten times as many purchasers enter the first store per day as are likely to come to the second. With the same number of clerks and the same amount of equipment you may make ten times as many sales in the former as in the latter. Because you trans-

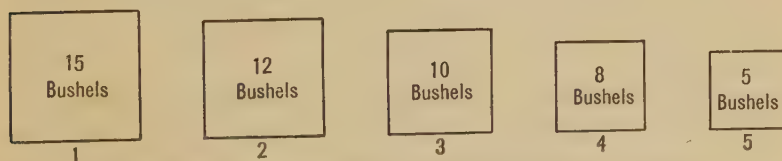


FIGURE 33. PRODUCTION ON UNEQUALLY FERTILE FIELDS

act ten times as much volume of business at the central store as at the suburban store your labor is ten times as productive on account of the superior location of the Manhattan enterprise.

To some extent, man can modify these differences in the inherent productive qualities and in the locations of lands, but only within certain limits. Fertilization will improve the quality of inferior soils; irrigation will make possible the growing of crops in desert regions; drainage may make swamps productive. In mining, methods may be devised which will make possible the utilization of inferior veins of minerals. Again, disadvantages of location can be overcome by extension of and by improvement in transportation facilities through the development of railways, highways, motors, etc. Men, too, have learned how to adapt each kind of land to the uses for which it is best fitted.

The ownership of land. — At present most land is privately owned. Yet, it has not always been so; and some social reformers are violently opposed to private land ownership. Among some primitive peoples the land under the control of each group belonged to the group as a whole, as we have seen (*ante*, page 9). In early England, in every community, a portion of the land was set aside as common property, where all could pasture their flocks and herds (*ante*, page 12). Similar institutions existed in Russia until recent times, and under the Bolsheviks, public ownership of land has been reestablished to a considerable degree. Private property in land has resulted from a gradual process which slowly became established and recognized by legal institutions.

In the United States the land was originally free to any one who would settle upon it, and it became his property by virtue of his clearing and cultivating a tract for his own use.

Thus, gradually, most of the public lands have come into private hands. In most civilized lands of to-day, all or nearly all land is owned by private individuals. Private property in land is a political institution of far-reaching economic importance.

TABLE 10

PUBLIC LANDS: ACRES UNAPPROPRIATED AND UNRESERVED, JUNE 30¹

	1890	1900	1910	1920	1922	1923
Total . .	586,216,861	557,643,120	343,971,674	200,320,128	182,886,310	185,933,242

¹ Statistical Abstract of the United States, 1923.

The law of diminishing returns. — The amount of produce obtainable from a single acre of land is not infinite — the yield is limited; if it were otherwise, all the people of the United States could be supported by what grew on a single acre. Up to a certain point, as more and more labor and capital goods are employed on a given plot of land, this extra application may bring corresponding increase in product, or even more; but if more than a certain proportion of these productive agents is used on a limited tract of land, there will not be a corresponding increase in the product. For instance, doubling the amount of labor and capital goods would not necessarily double the product although it might increase it somewhat. The point where this tendency sets in is known as the *point of diminishing returns*. Beyond this point, nature yields a smaller proportionate return; the aggregate return from additional “doses” of capital and labor may be larger but proportionately they will be smaller.

For example, let us suppose that, on a given acre plot of land, potatoes are planted; a “dose” of \$5 for labor and

capital goods would give us twenty bushels, one of \$10 would yield thirty-five bushels, one of \$15 forty-five bushels, and one of \$20 would yield fifty bushels.

OPERATION OF DIMINISHING RETURNS ILLUSTRATED

INSTALLMENTS OF LABOR AND CAPITAL	YIELD IN BUSHELS PER ACRE	YIELD FOR EACH DOLLAR EXPENDED
\$5 installment	20	4
\$10 installment	35	3.5
\$15 installment	45	3
\$20 installment	50	2.50

The law is also illustrated by the diagram, Figure 34.

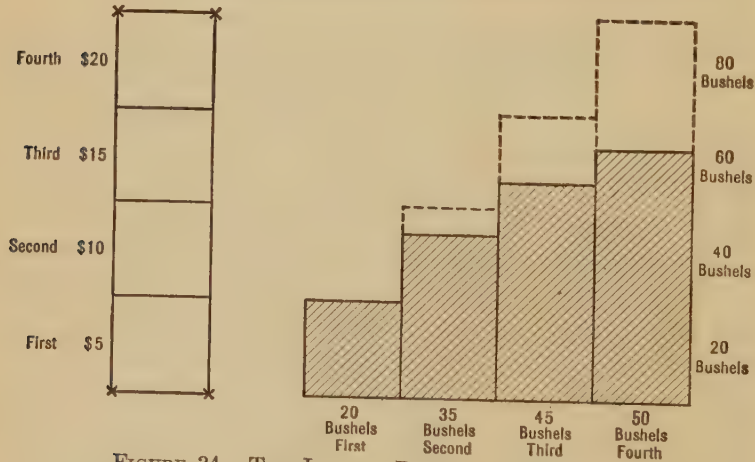


FIGURE 34. THE LAW OF DIMINISHING RETURNS

The law of diminishing returns stated. — *In a given state of the arts, after a certain point has been reached in the utilization of land, increasing applications of other productive agents to land will yield less than proportionate returns in products.*

The law also applies to urban land and to mines. — Our

illustration was taken from agricultural land ; but the law of diminishing returns also applies to land in cities. Urban land serves as sites for houses, factories, stores, and other structures. It is in cities that we find the "sky-scrapers," but you do not find twenty-story buildings on every street in any city ; it pays to erect a fifty-story Woolworth Building on Broadway, New York City, because it can be rented ; it would not pay to build a high building on the outskirts of a city because it could not be rented. The law also applies to working a mine. We can summarize our discussion by saying that the law of diminishing returns is due to difference in fertility, in agriculture ; to difference in location, in cities ; to difference in depth and in width and thickness of veins, in mines.

The extensive and intensive margin of cultivation. — The margin of use in the case of a single piece of land is called the

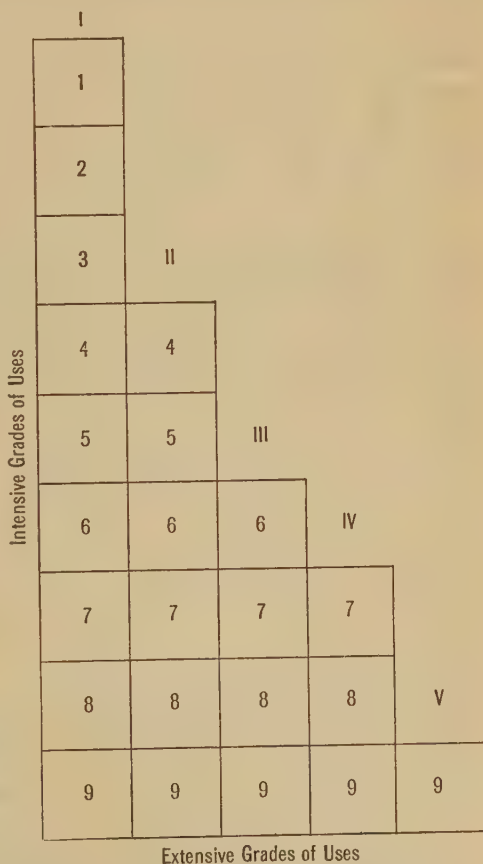


FIGURE 35. INTENSIVE AND EXTENSIVE MARGINS OF CULTIVATION

intensive margin of cultivation; in our illustration in Figure 34 the five-dollar installment is at the intensive margin of cultivation because beyond that point the law of diminishing returns begins to operate. When a number of plots of land are cultivated, the point between the one last used and the next unused is the extensive margin of cultivation. The best lands available are naturally used first, but as they are more intensively cultivated there is less and less proportionate return; then recourse will be made to inferior lands, *whose first uses*, however, are greater than the later, intensive uses of the better grade. The intensive margin is in the one plot of land; the extensive margin lies outside of it.

Let the better grades of land in a community be represented by the rectangles I, II, III, IV, and V, the upper parts of each represent the most readily secured returns. Each plot is capable of receiving many "doses" of labor and capital goods; those that bring the largest proportionate returns are the first ones, 1, 2, 3 in I; but after I has been cultivated intensively down to 4, II will begin to be cultivated at its highest point; when cultivation goes down to 6, III comes into use, and so on. It can be seen that until the intensive margin takes in 3, I is on the margin of cultivation and II is just outside of it; when the intensive margin falls to 7 and 8, IV is inside the extensive margin and V is just outside.

The law of diminishing returns re-stated. — In our discussion of diminishing returns, it will be noted that we have kept one factor, land, constant, and varied the other two, labor and capital. Similar results would be obtained by keeping labor constant and varying our "doses" of land and capital. Suppose, for instance, that we have five laborers and we place them at work on a given plot of land with a

certain amount of capital goods in the form of seed, plows, etc. Then if, at different times, we increase the amount of land and of capital goods upon which and with which our five laborers work, we shall observe the same phenomena that arrested our attention when we kept the amount of land constant and varied the amount of labor and capital. This would be true if we kept the amount of capital goods constant and varied the amounts of labor and land. Hence we can restate the law in a generalized form as follows: *If, of the three factors of production, land, labor, and capital goods, any one remain fixed and the other two be increased, after a certain point has been reached, although the aggregate return is larger, the proportionate return will be smaller.*

The law of proportionality. — Some writers on Economics have made a still further extension and application of the principles upon which the law of diminishing returns is based. They term it the law of proportionality or the law of variable proportions and it is thus stated by Professor Faubel: *There is always a stage in the use or combining of our productive factors where we get the largest proportional returns compared with costs:* for example, the fifty-story Woolworth Building is profitable in New York; it would not be profitable elsewhere. See p. 429.

EXERCISES AND PROBLEMS

I

1. What is the meaning of the term "land" in Economics?
2. In what seven ways is land of assistance in production?
3. In what two particulars do lands differ from each other?
4. What makes one plot of land in a city more valuable than another?
5. How did private ownership of land arise?
6. Why could not all the people living in your community be fed from the produce of one farm?

7. Why could not the people of your community live in one house built high enough to contain them all?
8. Give the first statement of the law of diminishing returns.
9. What is the intensive margin of cultivation? The extensive margin of cultivation?
10. Give the most general statement of the law of diminishing returns.
11. State the law of proportionality.

II

1. Does the building of state roads increase the productivity of the farms through which they pass? Explain.
2. Why are store buildings generally higher in cities than in villages?
3. Make a list of the most important natural resources in your community.
4. On a map of the United States locate the more important regions devoted to the production of wheat, corn, cotton, tobacco, rice, sugar cane, coal, oil, iron, gold, silver, copper.
5. Do American farmers cultivate their land *intensively* or *extensively*? Why?

III

1. Give economic reasons for the fact stated in the following quotation: "Modern factory construction is inclined to favor low buildings."
2. What are some of the reasons for the presence in one locality of many factories producing the same article?
3. If China should develop rapidly her immense material resources, what would be some of the probable effects on the industries of the United States? Explain.
4. Explain two benefits that result from individual rather than from common ownership of land.
5. The natural disadvantages of New England as a location for cotton mills have been evidenced by the fact that in the past

twenty years the number of spindles in the South has increased 190 per cent, while in the same period, the number of spindles in the North has increased only 41 per cent. Explain.

6. Texas planters and merchants have organized a corporation with \$10,000,000 capital for the purpose of erecting cotton mills at various points in Texas. Name the factors involved in the localization of industry and show their application to this quotation.

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CHAPTER VI

LABOR AS A FACTOR OF PRODUCTION

GENERAL CHARACTERISTICS

Definition. — Human beings must be active ; unless we do something, we die. But all activity is not labor, although all labor is a form of human activity. Suppose the boys in your school form a baseball nine ; you join it, and play as catcher or third base-man ; while engaged in the game you are violently exerting yourself. Are you laboring ? Suppose a professional baseball player takes part in a game of his team against the team of a neighboring city ; he violently exerts himself. Is he laboring ? The professional baseball player “ works ” when he plays ball ; the school boy “ plays ” when he plays ball.

We are likely to confine the meaning of the term “ labor ” to manual work. The farmer labors in the field, the motor-man labors on his car. Does the lawyer work ? the policeman ? the school teacher ? the legislator ? the president of a bank ? the President of the United States ? Yes ; all of the activities of life, mental or manual, that are undertaken for pay are included in the term “ work ” ; and all of those engaged in pursuits, and who are paid for their exertions, are laborers. Accordingly, we define labor as follows : *When exertion is undertaken not for its own sake, but as a means of acquiring wealth or income, it is called labor.*

Kinds of labor. — Our definition of labor is inclusive ; it embraces many kinds of exertion. For convenience we divide them into a few general classes.

First, *manual labor*. This is the work done by "the hewers of wood and the drawers of water"; it depends on brawn and muscle; and ranges from the commonest kind of unskilled work, such as digging subways or cellars, working on railway tracks, etc., up to the highly skilled operations of the expert mechanic. In its lowest form, it calls for little or no intelligence, and it is often drudgery. Other types of manual work require high intelligence and considerable training; and the operations themselves may be interesting and not monotonous.

Second, *clerical labor*. This is mental work although it may require very little intelligence or training. It may involve simple operations like checking items in an order of goods or the number of packages in a shipment, or in counting change. And, yet, some clerical positions call for considerable intellectual ability and technical training, such as the work of a stenographer or a secretary.

Third, *professional labor*. This calls for a higher type of intellectual effort. The work of professional people, such as physicians, lawyers, architects, engineers, artists, musicians, and so on, is here included. The ability required ranges from that of the dance orchestra musician to that of the opera star, from that of a country school teacher to that of a successful lawyer or a university professor. Success depends (1) upon innate ability and (2) upon long and expensive training.

Fourth, *labor of supervision or management*. This includes "business men" or entrepreneurs, as we have called them. It embraces enterprisers, employers of other types of laborers, executives, superintendents, foremen, etc. So important is such work that we have devoted Chapter IV to a consideration of the entrepreneur and his contribution to production.

Fifth, *the labor of invention*. Recent writers have made a distinct class of those who are engaged in invention. Their labor is certainly important, and, because of the revolutionary inventions of modern times, it is becoming increasingly important. The Industrial Revolution was caused by it, and the wonders of to-day are due to it. What the future holds only the future can reveal.

There is a popular classification of jobs which, though not scientific, is not without interest. Jobs are white-collar jobs or overall jobs, hard-handed jobs or soft-handed jobs. Some young people get a wrong idea about work; they rather look down on occupations in which one may get his hands dirty or soil his clothes; that is worse than foolish; it is snobbery. The hard-handed jobs are not only honorable but they are socially necessary, and, moreover, they often pay much better than many of the soft-handed but supposedly more genteel jobs. Don't be afraid of getting your hands dirty; a vigorous application of soap and water will remove the dirt. In fact, specially prepared soaps are made which will transform a mechanic with "dirty" hands into a Prince of Wales.

One of the biggest jobs before American industry, one of the jobs that industry *must* solve, said a Pittsburgh steel man to the writer not long ago, is that it must prove to the young man about to engage in a gainful occupation that a white collar and a pair of overalls are both badges of service and that the opportunities for advancement are greater in the overall field than they are in the white-collar field. For some reason, perhaps a multitude of reasons, overalls are no longer considered respectable by young America — and, believe me, American industry is feeling the pinch, too! We're willing to pay a premium to get alert, intelligent and ambitious young fellows in our plants — in particular, young chaps who have graduated from high school.¹

¹ Harry Botsford, *Barron's*, June 7, 1926.

TABLE 11

PERSONS GAINFULLY OCCUPIED: 1880-1920

YEAR	PER CENT OF TOTAL POPULATION			PER CENT OF POPULATION OVER 10 YEARS OF AGE		
	Both Sexes	Males	Females	Both Sexes	Males	Females
1880	34.7	57.8	10.7	47.3	78.7	14.7
1890	37.2	60.2	13.1	49.2	79.3	17.4
1900	38.3	61.2	14.3	50.2	80.0	18.8
1910	41.5	63.6	18.1	53.3	81.3	23.4
1920	39.4	61.3	16.5	50.3	78.2	21.1

TABLE 12

DISTRIBUTION BY MAIN CLASSES OF PERSONS ENGAGED IN GAINFUL OCCUPATIONS: 1880-1920

CLASS OF OCCUPATION	1920	1910	1900	1890	1880
Agricultural pursuits	26.0	32.9	35.7	39.2	44.3
Professional service	5.6	4.8	4.3	4.0	3.5
Domestic and personal service	11.5	14.0	19.2	18.1	19.6
Trade and transportation	21.3	19.9	16.4	14.3	10.8
Manufacturing and mechanical	35.6	28.3	24.4	24.4	21.8
All occupations	100.0	100.0	100.0	100.0	100.0

Division of labor. — In Chapter I we learned that the families of earlier days produced by their own labor most of the commodities they needed. In colonial times our forefathers lived on their own farms, built their own homes, raised their own food, and made their own clothes. To-day, as a result of the Industrial Revolution, each person produces very few of the commodities he consumes. He specializes, and relies on others to provide for most of his needs. This specialization is called *division of labor*.

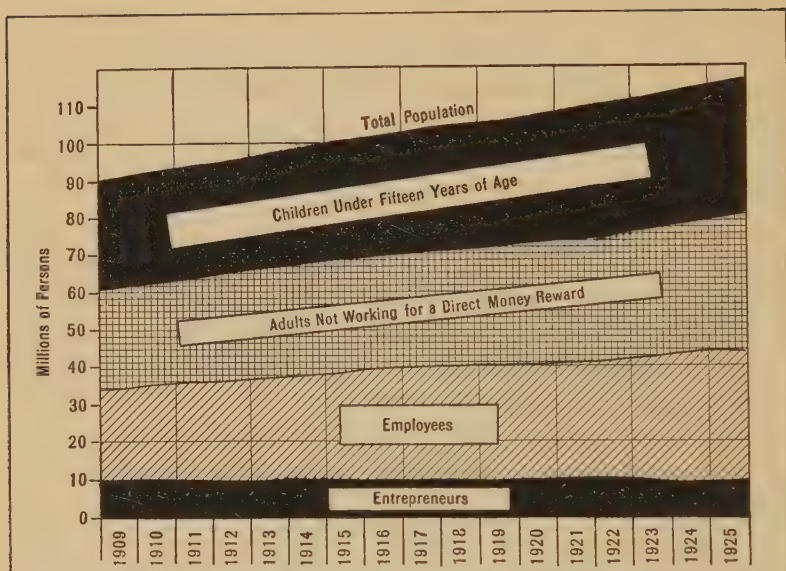


FIGURE 36. POPULATION OF THE CONTINENTAL UNITED STATES, CLASSIFIED ACCORDING TO OCCUPATIONAL STATUS ¹

The work of the world is split into branches, constituting a complex organization in which each individual has a special task to perform.

First, there is *simple* division of labor into *occupations* or *trades*. Each worker confines his efforts to a particular branch or kind of work ; men become butchers, bakers, and candlestick makers, and other kinds of workers.

Second, there is *complex* division of labor by *tasks* whereby the processes of a trade are split up into simple operations. A good example of this complex division of labor, resting still upon human labor rather than upon machinery, is to be found in the manufacture of ready-made coats, which is now in New York divided into no less than thirty-nine distinct

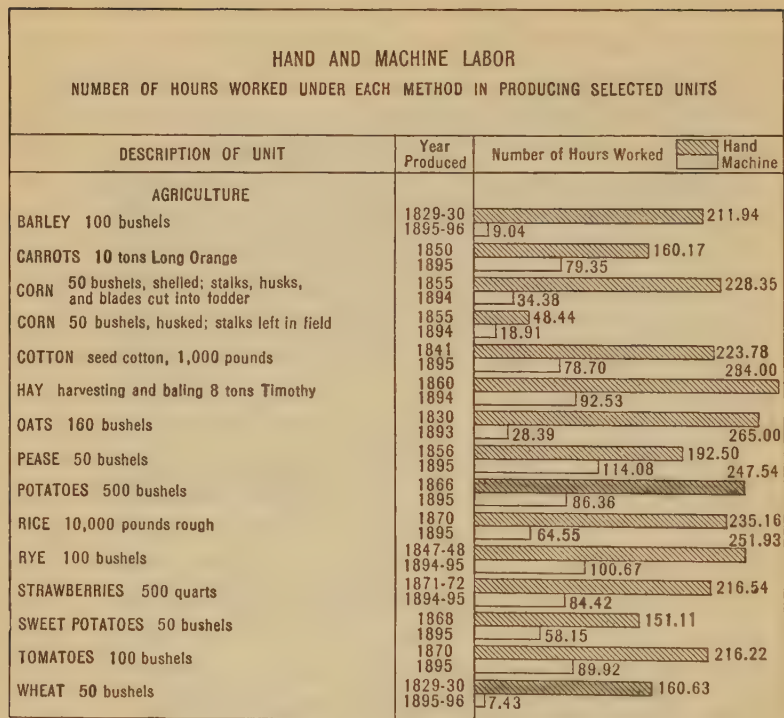
¹ The National Bureau of Economic Research, Incorporated.

processes. If we add to the increased skill of the laborers the endless succession of labor-saving devices, the number of particular processes increases enormously. To make a shoe in some New England factories requires 173 different operations, each conducted by a class of laborers with a special name. The manufacture of a fine watch calls for no less than 1,088 different sets of workmen, exclusive of those furnishing the power, each using a different kind of machine.

The saving of cost due to the introduction of machinery can be illustrated in the jewelry and iron business; under the machine method 1,020 gold filigree shells for cuff-buttons can be completed in the same time as one by the hand method; and in the production of screws, where one man can operate from six to twelve machines, the ratio of machine to hand product is 4,491 to 1. In the pin manufacture, originally a single workman could turn out only a few a day; in Adam Smith's day, his output was five thousand per day; while the daily product to-day is about fifteen million pins, complete and stuck in the paper. The United States Labor Bulletin 54 gives many other interesting examples of the saving of time due to this type of specialization.

Third, there is specialization by *stages*, each stage resulting in a finished product. To the lumberman, lumber is a finished product; to the paper manufacturer, lumber is a raw material and paper is a finished product; to the publisher, paper is a raw material and the book is the finished product.

Fourth, *geographical division of labor*, which enables each section of a country as well as each entire country to exploit its own natural resources. In large cities we find the most important wholesale houses in any line of business assembled together in districts by themselves. In nations, various industries are congregated to a large extent in localities

FIGURE 37. HAND AND MACHINE LABOR ¹

which possess some peculiar advantages, such as proximity to raw materials, water power, or markets, favorable climate, cheap labor, and supply of capital or credit facilities.

Specialization accomplishes so much because (1) it develops acquired skill and makes the laborer an expert; (2) the laborer can do the kind of work best suited to his ability; (3) it makes possible the use of machinery; (4) the industry of a region or a country can be adapted to its natural resources, like cotton in the South, wheat in the West, or

¹ United States Labor Bulletin, No. 54.

coffee in Brazil ; (5) whole communities can develop technique and skill, like the glove makers in Gloversville, the collar makers in Troy, and the automobile workers in Detroit.

An idea of the sequence of the stages in the production of iron and steel commodities may be obtained from the following diagram :

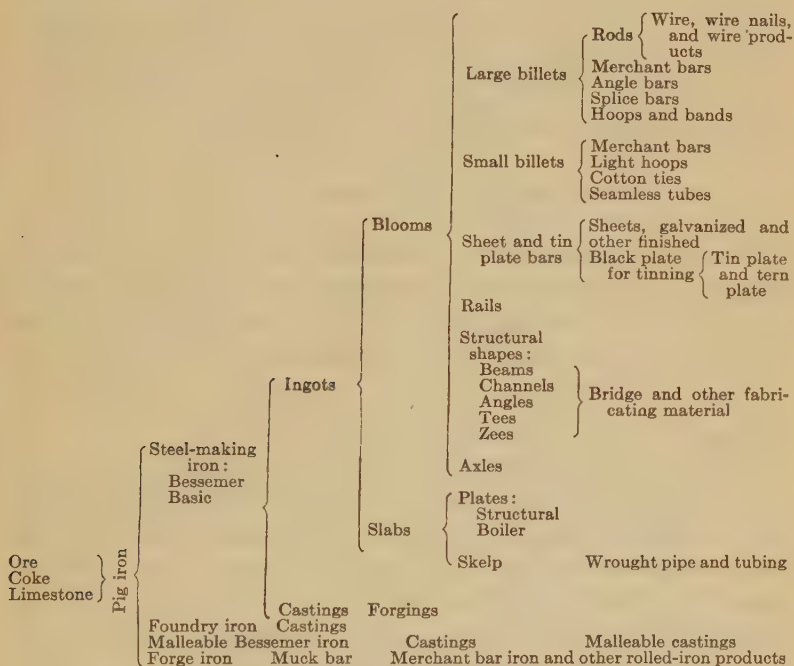


FIGURE 38. SPECIALIZATION BY STAGES IN THE STEEL INDUSTRY ¹

Results of specialization. — These are of great practical importance. (1) There is larger output at decreased cost per unit ; (2) it has caused uniformity of goods of a certain kind ; (3) it has added variety of goods ; (4) it has increased the

¹ From the *Report of the United States Commissioner of Corporations on the Steel Industry*, Part III (1913), p. 13. (See also p. 195.)

dependence on each other of individuals, communities, and nations; (5) it has separated the worker from his tools and from his product; (6) it has created difficult problems of distribution; (7) and, possibly, it has increased the irksomeness and the monotony of labor.

As labor furnishes the human element in production, the number and the character of the laborers are of vital importance in considering the contribution made by this factor to production. For that reason we shall make a somewhat detailed study of the problems of population.

PROBLEMS OF POPULATION

Increase of population. — The productiveness of a country depends in large measure upon the number and efficiency of its workers; the number of its workers is conditioned by the size of its population. In any given country, the size of the population is influenced (1) by the relation of deaths to births, (2) and by immigration and emigration.

The number of people in the world is steadily increasing. Since 1800 the population of Sweden and Norway, of Spain, and of Austria-Hungary has doubled, that of Italy has more than doubled, that of The United Kingdom has increased threefold, that of France has not quite doubled, that of Germany has considerably more than doubled, that of Russia has increased three and a half times, and that of the United States has increased twenty times.

The rate of increase. — Although the increase of our population has been nothing short of phenomenal, the rate of that increase has not been constant; indeed, the rate shows a tendency to decrease. The following table shows the growth of the population of the United States by decades from 1790 to 1920.

TABLE 13

YEAR	POPULATION	INCREASE PER CENT	YEAR	POPULATION	INCREASE PER CENT
1790	3,929,214		1860	31,443,321	35.6
1800	5,308,483	35.1	1870	38,558,371	22.6
1810	7,239,881	36.4	1880	50,155,783	30.1
1820	9,638,453	33.1	1890	52,947,714	25.5
1830	12,866,020	33.5	1900	75,994,575	20.7
1840	17,069,453	32.7	1910	91,972,266	21.0
1850	23,191,876	35.9	1920	105,710,620	14.9

These figures do not include the populations of Alaska, Hawaii, Porto Rico, and the Philippines. Making these additions for 1920, the population of the whole country was nearly 120,000,000. In comparison with the rates at which the population of other countries has grown during the period concerned, the growth of the United States has been astounding. History furnishes no parallel on an equal scale to the increase from 1790 to 1860 when the population doubled three times.

TABLE 14¹

BIRTH AND DEATH RATES PER 1,000 POPULATION IN THE BIRTH REGISTRATION AREA AND EACH REGISTRATION STATE: 1917 TO 1922

AREA	BIRTHS PER 1,000 POPULATION						DEATHS PER 1,000 POPULATION					
	1917	1918	1919	1920	1921	1922	1917	1918	1919	1920	1921	1922
Total birth registration area	24.7	24.6	22.3	23.7	24.3	22.5	14.2	18.3	13.0	13.1	11.7	11.9
White	24.7	24.6	22.1	23.5	24.0	22.2	13.8	17.8	12.6	12.8	11.4	11.6
Colored	24.4	24.5	25.2	27.0	27.9	26.0	21.3	26.8	18.5	18.4	15.9	16.3
Cities in birth registration area	25.4	25.1	22.7	23.8	24.0	22.2	15.3	19.9	13.8	14.0	12.2	12.4
White	25.7	25.4	22.8	23.8	23.9	22.1	14.9	19.4	13.4	13.5	11.8	12.9
Colored	19.7	19.8	21.9	24.0	25.4	23.7	24.4	29.6	21.1	22.1	19.4	19.1
Rural part of birth registration area	24.0	24.0	22.0	23.6	24.7	22.8	13.1	16.7	12.2	12.2	11.2	11.3
White	23.8	23.8	21.5	23.1	24.2	22.4	12.7	16.2	11.8	11.9	10.9	11.0
Colored	27.7	28.0	27.1	28.9	29.2	27.3	19.1	24.7	17.0	16.2	14.1	14.3

¹ Statistical Abstract of the United States, 1923.

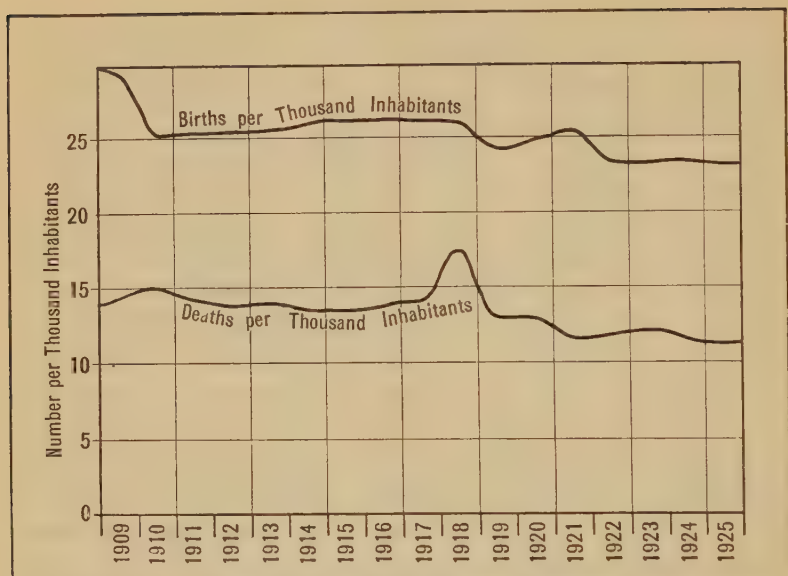


FIGURE 39. CHANGES IN BIRTH AND DEATH RATES IN CONTINENTAL UNITED STATES ¹

Distribution of population. — The population per square mile in this country has steadily grown from 4.5 in 1790 to 35.5 in 1920. The density of population in our various states is not the same, varying from 0.7 per square mile in Nevada to 566.4 in Rhode Island. Figure 41 presents the geographical distribution of population by states in 1910 and 1920.

Drift to the cities. — Taking the states whose urban concentration largely exceeds that of the average for the entire country, the percentage living in cities was in 1910 as in Table 15.

New York City is the most cosmopolitan city in the world. According to the census of 1920 it contained 479,797 people

¹ As estimated by the National Bureau of Economic Research.

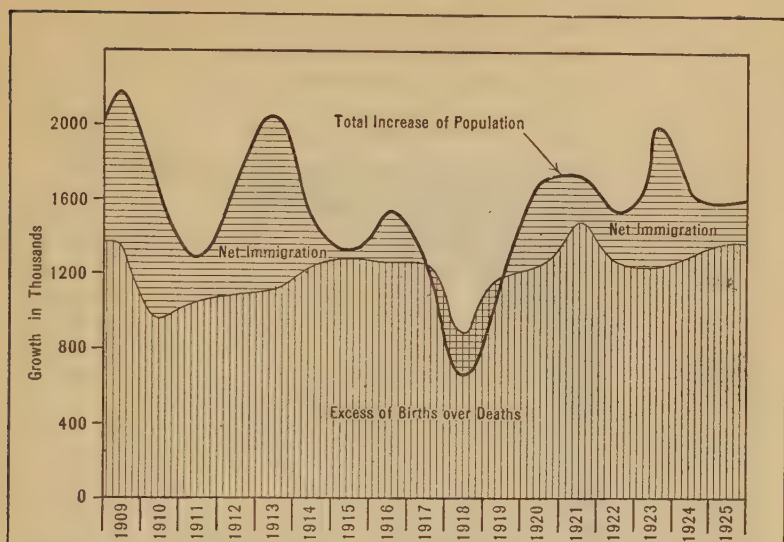
FIGURE 40. GROWTH IN POPULATION IN CONTINENTAL UNITED STATES ¹

TABLE 15

	IN CITIES OVER				
	100,000	25,000	10,000	5,000	2,500
Rhode Island	39.3	67	82.9	93	97.4
Massachusetts	39.5	66.2	81.6	89.9	94.7
New York	65.6	72.9	78.1	80	82.8
New Jersey	34.4	57.2	65.7	73.4	78.5
United States	25.9	35.7	42.3	47	51.3

born in Russia, 390,832 born in Italy, 203,450 in Ireland, 170,000 in Austria-Hungary, 73,000 in England and Wales, 33,000 in Sweden, 21,500 in Scotland, 23,000 in France, 24,500 in Norway, 21,455 in Greece, and twenty-four other countries were represented; total foreign born, 1,991,547.

¹ As estimated by the National Bureau of Research, Incorporated.

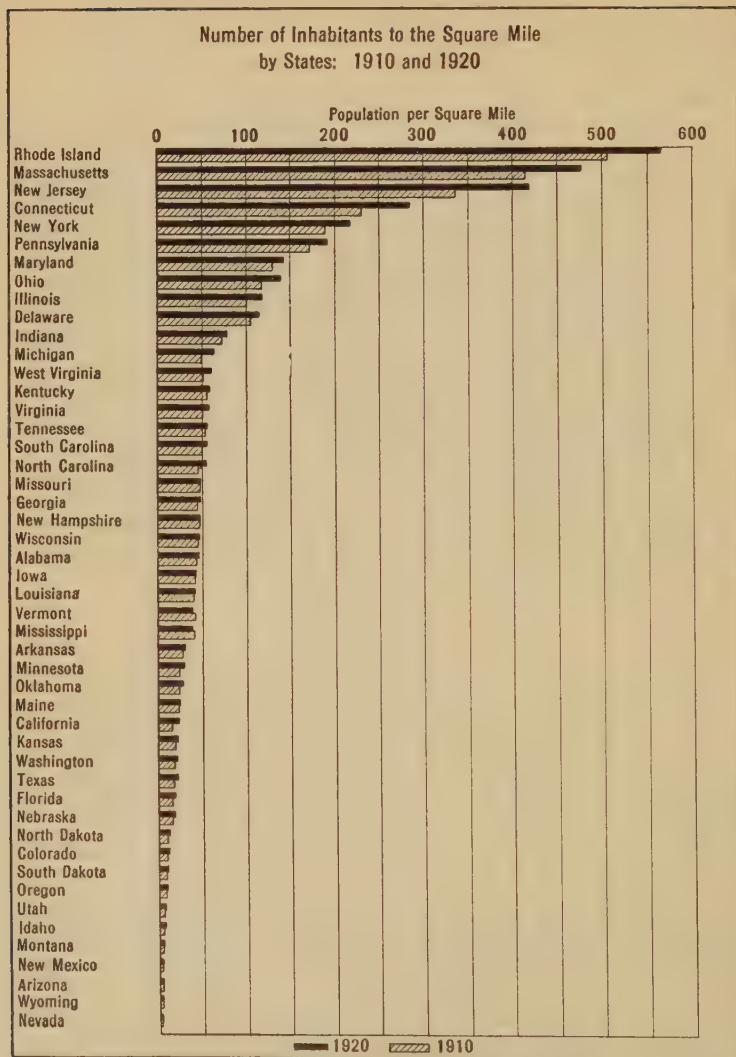


FIGURE 41. POPULATION PER SQUARE MILE
1910 AND 1920

TABLE 16¹

	POPULATION	NUMBER OF FOREIGN-BORN WHITE	PER CENT OF FOREIGN- BORN WHITE
New York	5,620,048	1,991,547	35.4
Chicago	2,701,705	805,482	29.8
Philadelphia	1,823,779	397,927	21.8
Detroit	993,678	289,297	29.1
Cleveland	796,841	239,538	30.1
St. Louis	772,897	103,239	13.4
Boston	748,060	238,919	31.9
Total	13,457,008	4,065,949	29.4

¹ Statistical Abstract of the United States, 1923.

TABLE 17

ELEMENTS IN THE POPULATION OF THE UNITED STATES: 1900 AND 1920

	1920		1900		PER CENT INCREASE 1900-1920
	NUMBER	PER CENT OF TOTAL	NUMBER	PER CENT OF TOTAL	
Total	105,710,620	100.0	75,994,575	100.0	39.1
Native white . .	81,108,161	76.7	56,595,379	74.5	43.3
Native stock (estimated) .	47,330,000	44.8	37,290,000	49.1	26.9
Foreign stock (estimated) .	33,780,000	32.0	19,300,000	25.4	75.0
Foreign-born white	13,712,754	13.0	10,213,817	13.4	34.3
Negro	10,463,131	9.9	8,833,994	11.6	18.4
Indian, Chinese, Japanese, etc.	426,574	0.4	351,385	0.5	21.4

Elements in the population. — Our population is not made up solely of people native to this country. Of those here in 1920, 89.7% were white, of whom 76.7 were natives of the

country, 44.8% were descendants of persons who were in the United States in 1790, 32% were of foreign stock, and 13% were foreign born; native whites had increased 43.3% since 1910, native stock had increased 26.9%; foreign stock had increased 75%, and foreign-born white had increased 34.3%. In the twenty years, from 1900 to 1920, the foreign-born whites had increased three and a half million.

Table 17, on preceding page, presents the data. Figure 42 presents the data graphically.

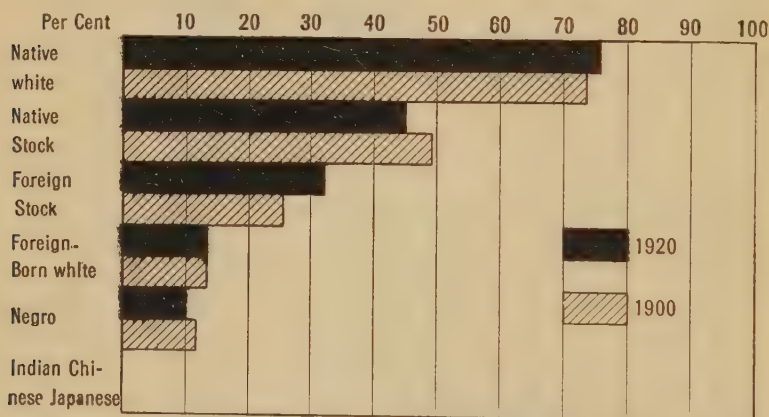


FIGURE 42. ELEMENTS IN THE POPULATION OF THE UNITED STATES 1900 AND 1920

Immigration. — From 1821 to 1920 there has come to our shores no less than the enormous number of 33,803,000 foreigners who have made this their home. No wonder that our population has made a world's record for rapid increase! For much more than a century, our policy had been to invite and welcome to our shores the oppressed, the persecuted, and the ambitious from all European countries; here they found a harbor of refuge and an opportunity to begin life anew and under favorable conditions.

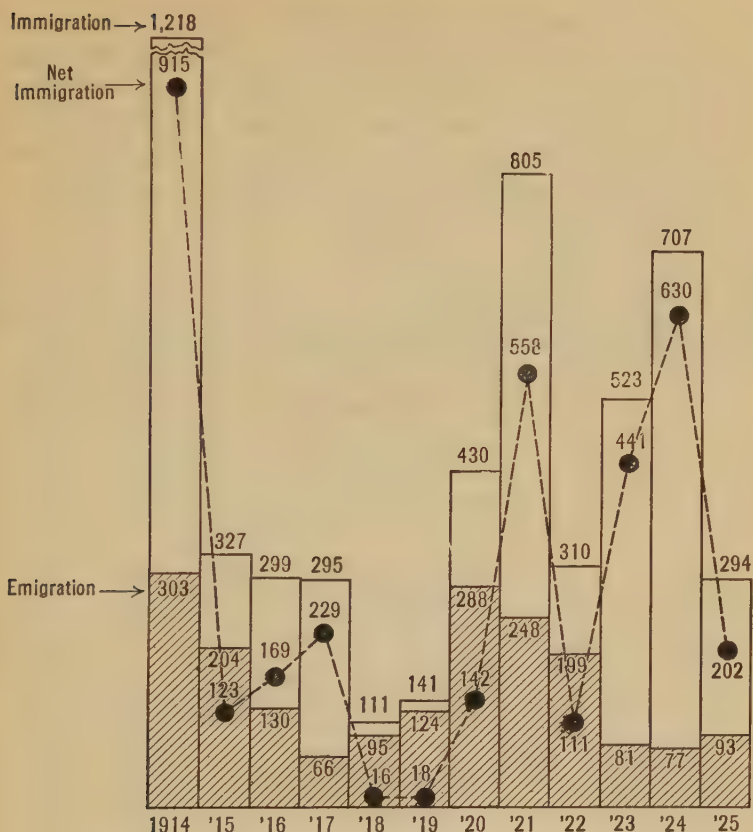


FIGURE 43. IMMIGRATION, EMIGRATION, AND NET IMMIGRATION
(in thousands)¹

During that long period the advantages of immigration were foremost in our minds; and upon these we based our public policy.

What were the advantages of immigration that appealed so strongly to us? What did the immigrant do for this country? (1) It is the immigrant who has brought under

¹ The National Industrial Conference Board.

cultivation the soil of our great inland empire; (2) it is he who built our railways, (3) dug our canals and subways, and (4) cut down our forests; and, withal, (5) the newcomer fitted into our life, (6) bringing in with him many admirable qualities to enrich our common existence; (7) he accepted our institutions and loyally supported our government.

TABLE 18

TOTAL NUMBER OF IMMIGRANTS (IN THOUSANDS) AND PROPORTION COMING FROM DESIGNATED COUNTRIES BY SPECIFIED PERIODS: 1821-1920

	1821 to 1850	1851 to 1860	1861 to 1870	1871 to 1880	1881 to 1890	1891 to 1900	1901 to 1910	1911 to 1920
Total Number	2456	2598	2315	2812	5247	3844	8795	5736
	PER CENT							
Germany	24.2	36.6	34.0	25.6	27.7	14.1	3.9	2.5
Great Britain	15.0	16.3	26.2	19.5	15.4	8.9	6.0	6.0
Ireland	42.3	35.2	18.8	15.5	12.5	10.5	3.8	2.5
Norway, Sweden, and Denmark	0.7	0.9	5.4	8.6	12.5	9.9	5.7	3.5
Total	82.2	89.0	84.4	69.2	68.1	43.4	19.4	14.5
Austria-Hungary			0.4	2.6	6.7	15.5	24.4	15.6
Italy	0.2	0.3	0.5	2.0	5.9	17.1	23.3	19.4
Russia and Poland	0.1	0.1	0.2	1.8	5.0	15.4	18.2	16.1
Total	0.3	0.4	1.1	6.4	17.6	48.0	65.9	51.1
All Other Countries	17.5	10.6	14.5	24.4	14.3	8.6	14.7	34.4
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

The facts here presented to our attention are so important that they are also presented in graphic form in Figure 44. Please study both the table and the figure.

This figure will explain why uncertainty as to the wisdom of allowing free, indiscriminate entrance to the country first

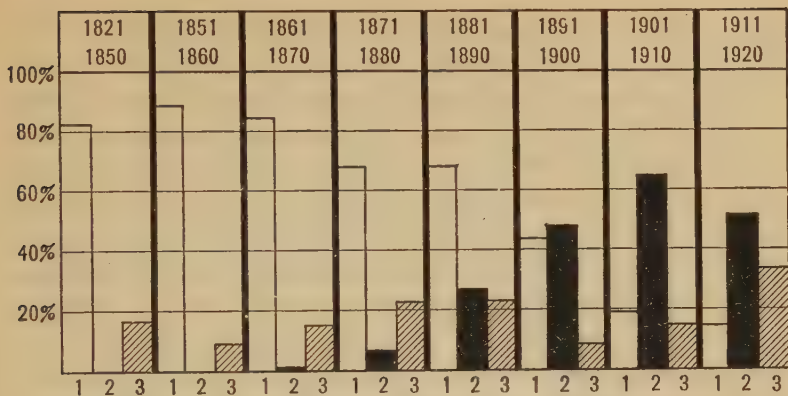


FIGURE 44. PROPORTION OF IMMIGRANTS COMING FROM DESIGNATED COUNTRIES

No. 1, from Germany, Great Britain, Ireland, and the Scandinavian countries.

No. 2, from Austria Hungary, Italy, Russia, and Poland.

No. 3, All Other Countries.

raised doubts, then fears, and finally led to what appears to be at least a temporary reversal of a course of action in statecraft that had been so long followed by us. Previous to 1890, our immigrants had come chiefly from Germany, Great Britain, Ireland, Norway, Sweden, and Denmark.

You will note in the graph that No. 1, which depicts the quota coming here from Germany, Great Britain, Ireland, and the Scandinavian countries, begins at 82.2% in the period 1821-1850, it runs through 89%, 84.4%, 69.2%, 68.1%, 43.4%, 19.4%, down to 14.5% in the period 1911-1920; while No. 2, depicting the quota from Austria-Hungary, Italy, Russia, and Poland, begins at 0.3% in the first period, runs through 0.4%, 1.1%, 6.4%, 17.6%, 48%, up to 65.9% in the period 1901-1910 and 51.1% in the period 1911-1920.

The so-called "newer immigration," which culminated in the period 1901-1910 with 65.9% of the entries into the

country, has brought to our attention what are said to be the disadvantages of immigration.

The opponents of unrestricted immigration contend that (1) the immigrant has brought a lower standard of living; (2) he has displaced American labor; (3) he has settled and colonized in large cities and has added to the congestion and has complicated all of the difficulties growing out of concentration of population; (4) he has furnished much more than his fair proportion of our hospital cases and of the illiterate and the criminal classes; (5) he has fallen an easy and willing prey to political "bosses," and thus rendered more difficult the government of our large cities; and, (6) finally, he often fails to become Americanized.

The last charge, while somewhat vague, summarizes and includes all of the others; for many years the United States was held to be the "melting pot" for all the world; but experience has led many thoughtful Americans to doubt our capacity to assimilate the "newer immigrant."

He does not seem to be willing to conform to our ways; he clings to his own language; he does not admire our institutions; he declines to accept our ideals; in many instances, he openly preaches against our most cherished and most fundamental conceptions of social, political, and economic institutions.

Because of the changed attitude of public opinion on the subject, Congress passed in 1921 the Immigration Restriction Law which limited the number of immigrants from any one country annually to 3 per cent of the number of that nationality already residing in the United States according to the census of 1910.

In 1924, Congress still further restricted the admission of foreigners by reducing to 2 per cent the quota from each country and basing it on the census of 1890; only ten per

cent of the annual quota is allowed to enter in any one month, and examination and inspection is made, not in this country, as heretofore, but by the American consul in the native country of the applicant for admission. The annual quota from Germany, under these provisions, is 51,227, from Great Britain 34,007, from Ireland 28,567, while from Russia it is 2,248 and from Italy it is 3,845.

Distribution of immigrants to United States changed by new law. — The shifting trend of immigration in recent years is graphically illustrated in the accompanying chart, which shows how changes in immigration laws have altered the proportions of different nationalities admitted to this country. For instance, back in 1907, the peak year for immigration, 74.4 per cent of the 1,285,349 aliens who came into the United States were from Southeastern and Eastern Europe. Only 21.9 per cent of the immigrants in that year were from Northwestern and Western Europe.

Gradually the percentage of the former type of immigrants to the total has decreased and the percentage of the latter type has increased, until, in the year which ended June 30, 1925, aliens entering this country from Northwestern and Western Europe amounted to 75.7 per cent of the total admissions for the 12 months and aliens coming from Southeastern and Eastern Europe reached only 10.8 per cent of the total.

A law was enacted by Congress in 1924 which will go into effect July 1, 1927. According to this statute, the immigrant quota shall be based upon ancestry or national origin instead of being fixed by birth lands as now obtains under the 2 per centum limit law. Subdivision (b) of Section II reads as follows: "The annual quota of any nationality shall be a number which bears the same ratio to 150,000 as the number of inhabitants in continental United States in 1920

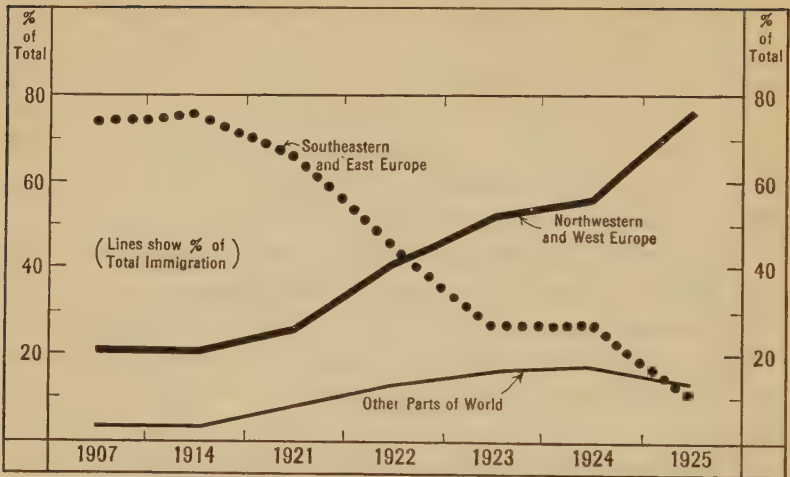


FIGURE 45. THE SHIFTING TREND OF IMMIGRATION
1907-1925 ¹

having that nation's origin bears to the number of inhabitants in continental United States in 1920, but the minimum quota of any nationality shall be 100."

Experts have figured out the changes indicated by the following figures :

TABLE 19

COUNTRIES	PRESENT QUOTAS	PROPOSED QUOTAS
Austria	785	2,171
Belgium	512	251
Czechoslovakia	3,073	1,359
Denmark	2,789	945
Esthonia	124	325
Finland	471	517
France	3,954	1,772
Germany	51,227	20,028
Great Britain and North Ireland	34,007	85,135
Irish Free State	28,567	8,330
Greece	100	384

¹ *The Brooklyn Daily Eagle.*

COUNTRIES	PRESENT QUOTAS	PROPOSED QUOTAS
Hungary	473	1,521
Italy	3,845	5,716
Netherlands	1,648	2,762
Norway	6,453	2,053
Poland	5,982	4,536
Portugal	503	236
Rumania	603	222
Russia	2,248	4,002
Spain	131	148
Sweden	9,561	3,072
Switzerland	2,081	783
Jugoslavia	671	591

Malthusianism. — At the end of the eighteenth century, in consequence of the Napoleonic Wars, England was in a bad plight; there were much unemployment and suffering among the poor; the outlook was gloomy. Under these conditions, the Reverend Thomas R. Malthus, a clergyman of the Church of England, published in 1798 his celebrated "First Essay on Population."¹ Possibly no equally brief publication has ever been responsible for so much discussion.

Population, he said, unchecked by wars, pestilence, famine, and floods, or by prudential restraints, tends to double in twenty-five years. This rapid rate of increase in population exceeds the rate of increase in food; hence population is constantly pressing on the food supply. The form of his statement was mathematical. He stated that population increases geometrically, in the ratio of 2, 4, 8, 16, 32, 64, 128, while the food supply increases arithmetically, in the ratio of 2, 4, 6, 8, 10, 12, 14.

Undoubtedly in some countries, China and India, for instance, millions of human beings are under-nourished and growing populations do press on subsistence. This is partly due to the fact that the people in those countries, either through ignorance or prejudice, persist in using primitive

¹ Five years later (1802) he published his second Essay on Population.

methods and tools in the cultivation of the soil. Their plows merely scratch the surface of the earth instead of turning a deep furrow; they know nothing of scientific agriculture. The adoption by the Orient of occidental methods would greatly increase the food products of the soil.

The problem is, however, a larger one. Even with improved methods of agriculture and conservation, can nature continue indefinitely to furnish food and raw material for a steadily increasing population? Marginal land has been brought under cultivation and there is little more free land or cheap land remaining; our annual net loss of timber is 19 billion cubic feet; our iron is being consumed at the rate of 30 billion tons a year; our smokeless coal fields are on the way to extinction in one hundred and fifty years; and the known deposits of oil lands will not last more than twenty years.

We can hope for improvement in productive methods; more complete mastery of nature's secrets will follow the persistence of our scientists; practical men will more completely utilize her powers and resources; and, possibly, the sea may yet surpass the land as a source of meat. Conservation of our natural resources must be extended and waste must be reduced.

EXERCISES AND PROBLEMS

I

1. Give a definition of labor.
2. Name five kinds of labor and illustrate each.
3. Study tables on page 143.
 - (1) What per cent of males over ten years of age was employed in 1880? 1920? of females in 1880? in 1920?
 - (2) Which of the five classes of occupations increased its percentage from 1880 to 1920? How much in each case?

4. What is a soft-handed job? a hard-handed job? Which would you prefer? Why?
5. Name four kinds of division of labor. Illustrate each.
6. Study United States Labor Bulletin 54.
 - (a) Select four examples from agriculture which, in your opinion, are the most interesting.
 - (b) Which of these seems to you the most remarkable? Why?
7. Give five reasons why specialization accomplishes so much.
8. Give seven important results of specialization.
9. In your opinion, has division of labor increased the irksomeness and monotony of labor? Why or why not?
10. In the past century how many times has the population of the United States doubled itself?
11. Which American state has the greatest density of population? the least? What is the density of population of your state?
12. "New York City is the most cosmopolitan city in the world."
 - (a) What is the meaning of "cosmopolitan"?
 - (b) What five countries contribute the largest number of the residents of New York City?
13. In 1920, what percentage of our population was native white? native stock? foreign stock? foreign-born white?
14. Study Table 18 and Figure 44.
 - (a) What changes in the proportions of the immigration of the "Nordic" races between 1821 and 1920?
 - (b) What changes in the proportions of the "newer immigration" during the same period?
15. Give the important features of the Immigration Restriction Law of 1921. What changes in it were made in 1924? What changes will go into effect in July, 1927?
16. State the "doctrine" of Malthus. Are you a Malthusian? Why or why not?

II

1. Is it true to say that labor produces all goods?
2. In the decade, 1911-1920, the tilled acreage in the United

States increased 9% while population increased 14.9%. Has the "pressure of population on food supply" begun in the United States?

3. Name five persons of your own acquaintance who would lose their present positions if there were no territorial division of labor.

4. Name ten illustrations of the geographical division of labor. What is the source of advantage in each case?

5. What immigrants are coming to your state? Do you think they should be permitted to come? Why or why not?

6. What are the advantages and the disadvantages of each form of the division of labor?

III

1. Give two economic reasons for excluding the Chinese and Japanese from the United States.

2. The traditional policy of the United States has been "to improve rather than to check immigration." Discuss the wisdom of this policy under present conditions.

3. Explain the meaning of division of labor. Illustrate from two different industries and show the advantages resulting from the system.

4. Explain the following statement: "A too rigid application of the division of labor tends to break down the human units on which industrial prosperity depends."

5. Adam Smith said: "The division of labor is limited by the size of the market." What did he mean by this statement? Explain three economic evils that have resulted from division of labor.

6. Work is not effectively done unless the workers put voluntary effort into it. Explain.

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CHAPTER VII

CAPITAL GOODS AS A FACTOR OF PRODUCTION

7 **Definition of capital goods.** — The word “capital” is used in so many ways that it is best to discard it; when you say “capital,” — never say it! Instead, say *capital goods*, or *capital funds*, and, then, you will mean something definite.

It is best to use the expression “capital goods” because we then clearly exclude “capital funds,” on the one hand, and “consumers’ goods,” on the other. “Capital funds” is a financial term and refers to an amount invested in an enterprise; “consumers’ goods” is an economic term and refers to scarce physical goods capable of satisfying human wants, which are in the hands of consumers. The term *wealth*, in Economics, means *scarce physical things that are capable of satisfying human wants, directly or indirectly*; it is synonymous with *economic goods*. *Free goods* are physical things which satisfy human wants, but they are *not scarce*.

There are five factors of production: the entrepreneur, land, labor, capital goods, and the community. Of these, land and labor are primary; the others, capital goods, the entrepreneur, and the community, are derivative and secondary. All scarce physical things devoted to the production of more things, which, in turn, will be capable of satisfying human wants, are called *producers’ goods*. Land, for instance, is a producer’s good. If the primary factor of production, labor, be applied to the primary factor, land, and

there results physical things which are not used directly to satisfy a human want, but, rather, to produce something else which will, directly or indirectly, satisfy a human want, we call those intermediary products thus devoted to further production by the economic term "capital goods." A short definition is: *Capital goods are the produced means of production.*

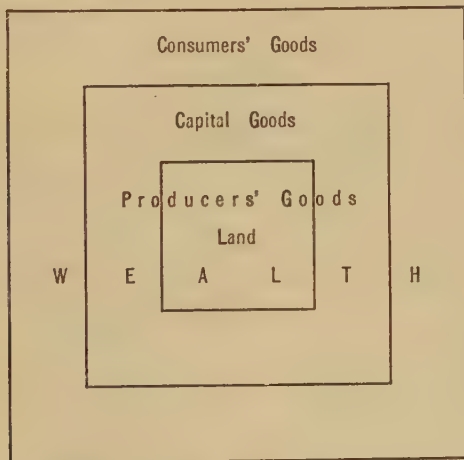


FIGURE 46. WEALTH OR ECONOMIC GOODS

Figure 46 will illustrate. It is clear and simple; please study it. The central square is land, the original source from which all wealth is derived; to it labor is applied and there results many goods "in the process of production"; these are represented by the squares 1 and 2; and, finally, at the end of the process is the finished wealth, represented by the square 3, goods in the hands of consumers. All of the goods, including the central square, land, and the surrounding squares, 1 and 2, are *producers' goods*; while the

squares 1 and 2 represent *capital goods*. All four squares together represent wealth or economic goods.

The wealth of the United States. — Interesting estimates of the wealth of this country have been made from time to time. In Table 20 is presented the estimate of W. I. King published in 1922. It does not distinguish between producers' and consumers' goods. Note, please, how small is the item "Gold and silver coin and bullion" compared with the total.

TABLE 20 A

ESTIMATED INTERNAL WEALTH AND FOREIGN HOLDINGS OF THE UNITED STATES FOR 1909 AND 1919

FORM OF WEALTH	1919	1909
Urban realty and mines	\$87,801,000,000	\$64,432,000,000
Farm realty	59,900,000,000	33,849,000,000
Live stock	9,986,000,000	5,724,000,000
Farm implements and machinery	2,907,000,000	1,021,000,000
Agricultural products	13,242,000,000	5,091,000,000
Gold and silver coin and bullion	3,838,000,000	2,441,000,000
Railroads and their equipments	12,830,000,000	14,637,000,000
Public service plants and equipments . .	11,767,000,000	8,777,000,000
Mining products	2,346,000,000	675,000,000
Manufacturing machinery, tools, etc. . .	12,002,000,000	5,037,000,000
Manufactured products	43,461,000,000	11,107,000,000
Imported merchandise	1,719,000,000	623,000,000
Automobiles	4,380,000,000	301,000,000
Clothing, personal ornaments, furniture, etc.	18,278,000,000	10,552,000,000
Total internal physical wealth	\$284,498,000,000	\$164,241,000,000
Property rights in foreign countries . .	+ 9,647,000,000	— 1,637,000,000
Total	\$294,145,000,000	\$162,604,000,000

The National City Bank of New York in its *Bulletin* for February, 1926, presents the following table and graph with accompanying explanation :

TABLE 20 B

ESTIMATED NATIONAL WEALTH OF THE UNITED STATES
Based on Bureau of the Census Reports
(000,000 omitted, except in per capita figures)

	1880	1890	1900	1904	1912	1922
Taxable real property and improvements	20,078	35,711	46,325	55,510	96,923	155,909
Tax-exempt real property and improvements	2,000	3,833	6,213	6,831	12,314	20,506
Agriculture and mining	3,187	3,994	5,838	7,226	13,662	14,608
Manufacturing	6,160	3,059	8,628	10,707	20,785	44,206
Railroads	5,536	8,296	9,036	11,245	16,149	19,951
Public utilities	419	1,091	3,495	4,841	10,265	15,414
Personal and miscellaneous	6,262	9,053	8,982	10,744	16,202	50,210
Grand total	43,642	65,037	88,517	107,104	186,300	320,804
Per capita	870	1,036	1,165	1,318	1,950	2,918
Annual increase (%)	4.51	4.89	3.61	5.25	9.22	7.24
U. S. Labor Bureau price index	94	81	81	86	100	156
Grand total at 1913 prices	46,400	80,500	109,400	124,800	186,300	206,000
Per capita at 1913 prices	925	1,280	1,440	1,510	1,950	1,885
Annual increase at 1913 prices (%)	9.32	7.35	3.59	3.52	6.16	1.06

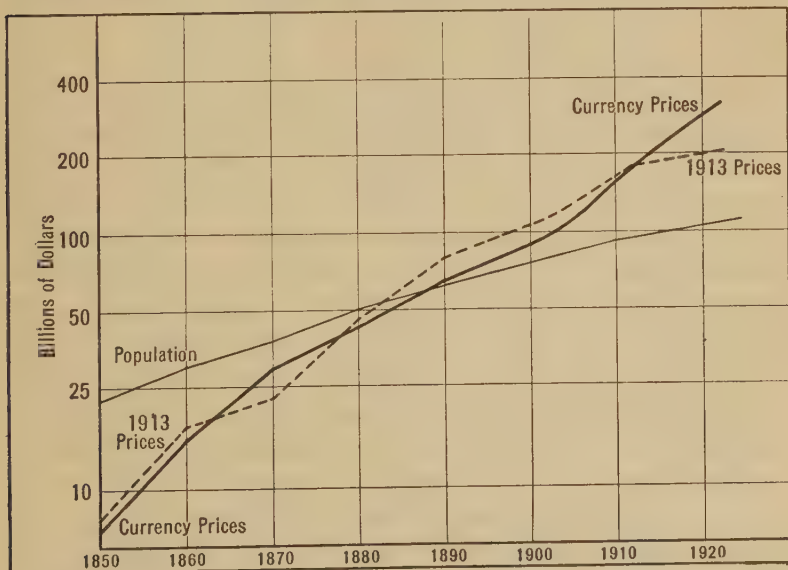


FIGURE 47. WEALTH IN UNITED STATES, BASED ON 1913 PRICES
1850-1922

The census figures of wealth. — The latest computation of the wealth of the United States of all kinds by the Bureau of the Census was made as of the close of the year 1922. We give the figures of that estimate above and for comparison the previous estimates together with our own calculations of the annual increase in per capita wealth (based on census figures of population) and of the value of the several wealth estimates on the 1913 price level, according to the Bureau of Labor price tables. The graph shows the curve of increasing wealth conforming to these calculations. National wealth at prevailing prices is shown by heavy line, wealth based on a uniform 1913 price level by dotted line, and population by light line.

Examples of capital goods. — Remember the definition of capital goods — *the produced means of production* — and the following list will be easily understood. “Capital goods” includes (1) improvements on land, such as fence and drains; (2) means of transportation, such as roads, canals, and highways; (3) buildings, such as barns, factories, and stores; (4) raw materials, such as wool and iron, which reappear in the finished product; (5) auxiliary material, such as coal and lubricating oil, which do not reappear in the finished product; (6) tools and machines; (7) domesticated animals, such as truck horses; (8) money, weights, and measures; (9) commercial stocks of finished goods; (10) books and appliances used by individuals rendering personal services, such as the instruments of the surgeon. These must be used in the production of goods that will satisfy human wants, otherwise none of them is a capital good. Neither land nor personal skill is included under the term “capital goods,” although they are both factors of production; the former is itself one of the primary factors; the latter is included under labor.

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Origin of capital goods. — There are three steps in the creation of capital goods.

First, there must be a *surplus* above what is necessary to meet immediate needs. If your income is \$60 per month and you spend every cent of it, you are not a capitalist; but if you spend only \$50 per month, there will be a surplus of \$10 which you can use some way.

Second, that surplus must be *saved* and not “spent.” It is not always clear just how an individual adds to the capital goods of the country by merely refraining from spending his entire income. Commonly, he will put his funds in a bank; as we shall learn later, this enables the bank to loan several times the amount of the deposit; the funds so loaned may be used in productive enterprises. However, the individual himself will not become a capitalist unless he takes the next step.

Third, the surplus must be *invested*; in other words, it must be put to work for its owner; it may be placed in a savings bank where it will draw interest or loaned to a corporation by purchase of its bonds, and the corporation will use the funds in active production. One source of an immense amount of new capital goods is the savings made by corporations themselves; *out of their profits* they often set aside large amounts for extension and improvements; these are credited to “surplus.” Thus, on December 31, 1924, the American Telephone and Telegraph Company had “plowed back” in this manner no less than \$127,253,578.20.

Inducement to saving. — Why should any one save rather than spend his income? Some people think there is no adequate reason; they dislike taking thought for the morrow; preferring that to-morrow should take care of itself. To them, saving is painful. They have not formed the habit; it is forming the habit of saving that is painful; after

that has been done, saving is often a real pleasure. Just try it and see. Those who do save and invest their savings are induced to do so, (1) by security of the principle; they feel that the capital fund is there, should they need it; (2) they are anxious to add to it by means of the interest or dividends which they can command for its use; and (3) they wish to prepare for their old age or future comfort or for that of their dependents.

Kinds of capital goods. — *First*, for convenience, capital goods may be classified *on the basis of their durability*. (1) Some forms last a long time, and are used over and over again, such as the building in which a factory is located, the machinery in the factory which may be used day in and day out. Such capital goods are known as *fixed capital goods* which may be defined as *capital goods which can be used repeatedly in the same operation*. (2) On the other hand, the coal which produced the steam to drive the machinery in the factory is consumed in one operation. Likewise, the cotton which goes through the machines and emerges as thread. It is shipped away and soon becomes a consumer's good. A stick of dynamite can be used but once in blasting. Such capital goods are known as *circulating capital goods* which may be defined as *capital goods which are used but once in the same operation*.

Second, capital goods may also be classified *on the basis of the number of different uses to which they can be put*. (1) Some capital goods can be used for many different purposes. Power is needed for nearly every industry; hence coal which produces power is almost universal in its uses. Large buildings in the heart of a city can be utilized for factories, stores, or office purposes. Such capital goods are known as *free capital goods*. (2) On the other hand, some forms of capital goods are *adapted for only a particular use, e.g.,* much of our

complicated machinery, theater buildings, grain elevators, green-houses, oil tanks, tank cars, sleeping cars, etc. Such forms of capital goods are known as *specialized capital goods*.

Third, some economists make a separate category of what they call *acquisitive capital goods*. By this they mean such consumers' goods as actually bring to the owner an income, such as houses, lands, taxicabs, etc., which are rented to others by the owner.

The replacement fund. — As soon as capital goods have been created, they begin to wear out; (1) the coal that furnishes power for the factory is destroyed in a single use; (2) the machinery in the factory suffers wear and tear, and finally, must be replaced; (3) and some forms of capital goods become unsuited to production because new and better forms are devised, (4) or the demand for the product may die out. For example, the automobile destroyed the large and flourishing industry of carriage and wagon manufacturing. (5) Raw material used in the process of manufacture must itself be made good. Business men must lay aside sums to replace these losses. They often charge them to *depreciation*; economists call this *the replacement fund*.

The capitalistic method is the round-about method of production. — We call this the capitalistic method because in it capital goods play so important a part; it is also sometimes called the *indirect* or *roundabout* method of production. The direct method to produce shoes would be for a cobbler to make use of his simple tools, and make one shoe at a time, producing possibly a pair in two or three days.

The modern or capitalistic, roundabout method of making shoes is very different. A tract of land, suitably located, must be selected and purchased; this involves many journeyings and inspection of different tracts, under the guidance of

real estate agents; after the tract is selected, lawyers must be engaged, titles searched and cleared, and legal papers passed; then, perhaps, there will be more journeying to learn the latest in shoe factory construction; architects must be chosen, plans must be drawn, and contractors must bid on the job; much time is consumed in erecting the building; more journeying must follow in order to visit the other mills to "get a line" on the very latest and best in machinery; orders for making the machinery must be given; after the machinery has been built, it must be installed; a large labor force must be assembled and trained; finally, after, perhaps, three years of planning, working, and waiting, at last everything is in readiness. Our factory starts making shoes; instead of one pair in three days, it may turn out 20,000 to 50,000 pairs in a day, and these shoes will be better in quality and workmanship and cheaper in price than the cobbler's single pair. Surely, this is a roundabout method of making shoes.

This roundabout method involves (1) elaborate preparation, (2) production spread over a period of time, (3) much capital goods, (4) large output, (5) and low prices of consumable goods.

EXERCISES AND PROBLEMS

I

1. Define the following: capital goods, capital funds, wealth, economic goods, free goods.
2. Construct your own diagram illustrating the mutual relations of consumers' goods, capital goods, land, and producers' goods.
3. According to Mr. King's estimate, what is the total wealth of the United States? What are the four largest items?
4. According to the National City Bank Estimate was the

average citizen as wealthy in 1922 as in 1912? in 1904? in 1900? in 1890? in 1880?

5. Give several examples of capital goods.

6. What are the three steps in the creation of capital goods? Explain each.

7. How do corporations add new capital goods?

8. Give the threefold classification of capital goods. Explain each.

9. Why is the capitalistic method of production called "roundabout"?

10. What are the results of the roundabout method of production?

II

1. Are the following capital goods, wealth, or free goods:

(a) Straw in a barn? Straw in a hat factory? A straw hat in a hat shop? A straw hat in your closet?

(b) A fire-cracker in a store? A fire-cracker in your hands? A fire-cracker in the air?

(c) A valise in a store? A valise in a traveling man's outfit? A valise belonging to you?

2. According to the doctrine of the socialists, labor is the sole creator of wealth.

(a) Can wealth be created without labor? If so, how?

(b) Can labor alone create wealth? If so, how?

(c) Suppose all capital goods were destroyed, how would that affect the productivity of labor? Why?

(d) Can wealth be created without the coöperation of nature? If so, how?

3. (a) How does your father make a living?

(b) Does he use any capital goods?

(c) If so, classify them into free, specialized, fixed, and circulating capital goods.

4. Suppose roundabout methods of production were displaced by direct methods.

(a) What would be the effect on civilization?

(b) What would be the effect on the volume of production?

(c) Would your family be more or less self-reliant? Your community?

(d) Would every one have more or less leisure?

(e) How would manufacturing be affected? Transportation? Invention? Merchandising? Investment bankers? Architects? School teachers?

III

1. Show in detail the services rendered to production by capital goods.

2. Define wealth. Show by references to an electric light plant and power company, or by reference to some farm product, that land, labor, and capital goods are necessary factors in the production of wealth.

3. "The capitalist renders no useful service, but takes much that others produce." Give two arguments against this statement.

4. Explain the difference between individual wealth and social wealth. Give one illustration of each.

5. It is a slow task to increase the capital fund; it takes time, labor, economy, self-denial to accomplish it. Explain.

6. Capital goods grow through the surplus of production over immediate consumption. Explain.

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CHAPTER VIII

THE COMMUNITY AS AN AGENT OF PRODUCTION

The government represents the community. — We have studied four of our five factors of production; we have learned that organization is a valuable contribution of the entrepreneur; that “land” provides sites, raw materials, and power; that labor constitutes the human element in production; that capital goods furnished by the capitalist are necessary if production is to be carried forward on anything but a meager scale. The last agent of production to be considered is the community, which acts through government.

What does government do to aid production? — In civilized countries, (1) it maintains the institution of private property, which is the right of an individual to the control over goods which are his; (2) it protects life and property from enemies without and within the borders of the state; (3) it creates and maintains the institution of contract; and compels legal performance of contract promises; (4) it regulates business in the interest of the public, *e.g.*, government control over railroads, street railways, and banks, “public utilities,” purveyors of food; (5) it participates directly in industry in some cases, for instance the post office, water works in American cities, and railroads abroad; (6) it also provides money, both coined and printed; (7) it makes and keeps in repair our high-

ways, and (8) it grants patents, copyrights, and trade marks.

Patents, copyrights, and trade marks. — By our constitution, Congress is given power “to promote the progress of science and the useful arts by securing, for limited times, to authors and inventors, exclusive rights to their respective writings and discoveries,” but it has not the power to grant monopolies for other purposes.

Under the patent laws now in force in the United States “any person, native or foreign, who has invented or discovered any new or useful art, machine, or manufacture or composition of matter, or any new or useful improvement thereon, not known or used in this country, and not patented or described in any publication in this or any foreign country, before his invention or discovery thereof, and not in public use or sale for more than two years prior to his application, unless the same is proved to have been abandoned, may upon the payment of the fees required by law and other due proceedings had, obtain a patent therefor.” This patent gives the patentee for seventeen years exclusive right to manufacture and sell the invention.

Our present patent system does not enjoy universal support. Three arguments are commonly advanced in favor of granting patents. (1) They foster invention and discovery by insuring to the inventor adequate reward. (2) They induce inventors to make their inventions public. And (3) were it not for protection afforded by patents, capitalists would be unwilling to risk their means in development of the new processes. These arguments are commonly held to be a sufficient defense of the present system.

However, our present patent system is criticized on several grounds. (1) It is denied that men of genius require special inducements to follow their special bent. (2) It is

held that in practice those who reap the rewards of monopoly under our patent system are more often business men and corporations who acquire control of patents rather than the inventors themselves. (3) It is alleged that many important inventions and discoveries are the joint products of many minds. Why, then, should the lucky individual who first reaches the patent office "gobble up" all the profits? (4) It is contended that many patents are suppressed by those who have vested interests to protect; consequently, our patent laws do not further progress; in fact, they actually retard it. (5) It is pointed out that because of the rapid progress in methods of production in recent years, most processes and methods are obsolete in seventeen years.

Here are five serious objections to our present patent laws. How far are they valid? Let us take up these objections in order.

1. Yes, perhaps genius needs no incentive to follow its natural bent, but talent does; and the great majority of inventions and discoveries have been made, not as strokes of genius, but by laborious study and experiment. Inventors and discoverers are, like other people, influenced by the expectation of financial return.

2. To this objection it may be asked if making an invention a commercial success is not as important as that of making the invention itself? Unless men with money and *vision* take up and help an inventor, he simply remains a "visionary," impractical man. Most inventors realize something from successful inventions; but they are apt to lose it in later impractical schemes.

3. Any scheme, it is held, to stimulate invention cannot hope to reward each individual inventor according to his merits; all it can do is to stimulate all inventors, with the hope of thus benefiting the public.

As to the fourth and fifth objections, many thinkers frankly admit that here is the weakness of the present system. The wisdom is doubted of any system that permits the suppression of inventions or the granting of a monopoly for the same long period of time to all inventors, irrespective of the character of their inventions or the use they make of them. Other countries have required proof from the patentee within three or four years from the time it is granted, that some use of benefit to the public is being made of his patent, otherwise it is revoked.

In reference to the last objection, the most feasible suggestion is to follow the policy of the United Kingdom in reducing the period from seventeen to ten years, permitting renewals for five or ten years in those cases where the public interest seems to require it. The proportions of the problem may be grasped when it is stated that the annual number of patents granted by our government is over 40,000 per year.

Our Patent Office also registers labels and trade marks. These are of importance in giving a basis to what is known as the "good will" of a business. A reputation fairly won for quality of product is protected by a registered label or trade mark.

Copyright is "the exclusive right to multiply for sale copies of literature or art." It includes books, magazines, articles in daily papers, maps, charts, reproductions of paintings, and other works of art, songs, and other exemplifications of the art of printing. The first English Act on the subject was dated 1710; the present English law grants copyright privileges during the life of the author and for seven years thereafter; in all, the period shall not be more than forty-two years. The provisions of our own law are for a first period of twenty-eight years with one renewal by

the author or his heirs for fourteen years, a total of forty-two years.

In Mexico, copyright is perpetual; in Spain, it lasts for eighty years after an author's death; in France, fifty years, and in Germany, thirty years. By the Act of 1891, foreigners were granted the same privileges as Americans. International copyright is provided for by treaties between many countries.

Mercantilism and *laissez-faire*. — The question of the proper relation of government to industry is to-day hotly debated; there are extremists on both sides; it is a controversy of long standing.

Government has always had some connection with industry. In the handicraft stage, the guilds of the "free cities" often constituted the city government, and thus, the guild regulations in reference to their industry had the force of legal sanction; these regulations as to apprenticeship, quality of goods, and prices were most minute.

From the sixteenth to the nineteenth centuries, there was the consolidation and growth of large national states, and the power of individual cities waned; but, with the growth of national governments, there was national control and regulation of business. To the notions which underlay these national regulations a name is given, viz. *the Mercantile System*. Its essential idea was the guidance of economic affairs in such a way as to increase the commercial and military power of the nation as a whole. The Navigation Laws which you studied in your American history were a part of this system; an attempt was made to create a so-called "favorable" balance of trade by causing an excess of merchandise exports over imports, which, in turn, it was thought, would cause gold to come into the country. Agriculture was fostered in order to increase the population; government

also interfered with internal trade; *e.g.*, prices, wages, and the rules of apprenticeship were fixed by public authority; the quality of goods was inspected by public officials; patents of monopoly for the sale of certain commodities, such as gunpowder, matches, and playing cards, were granted by royalty to favorite individuals or companies.

In 1776, Adam Smith published his *Wealth of Nations*, which Professor Ely says is "the most influential book ever written on Economics." In the following well-known passage, Adam Smith rejects the doctrine of state regulation of industry.

Every individual is continually exerting himself to find out the most advantageous employment for whatever capital he can command. It is his own advantage, indeed, and not that of society, which he has in view. But the study of his own advantage, naturally, or, rather, necessarily, leads him to prefer that employment which is most advantageous to society. What is the species of domestic industry which his capital can employ, and of which the produce is likely to be of the greatest value, *every individual*, it is evident, *can*, in his local situation, *judge much better than any statesman or lawgiver can for him*.

In the words italicized, Adam Smith has stated the idea of the *laissez-faire* doctrine, that *government shall keep its hands off and let business alone*. Adam Smith would rely upon competition rather than regulation. The essence of competition is rivalry: rivalry of buyer against buyer, of seller against seller; rivalry of consumer against consumer, of producer against producer.

These two antagonistic ideas, (1) *governmental regulation*, on the one hand, and (2) *competition*, on the other, are still battling against each other. The late President Harding took sides in an age-long debate when he declared for "*less government in business, and more business in government*."

EXERCISES AND PROBLEMS

I

1. By what means does the community aid production?
2. What does government do in production?
3. Describe our patent system. What are its defects? How would you remedy them?
4. What are the provisions of our copyright law?
5. What were the doctrines held by the Mercantilists?
6. What is the doctrine of *laissez-faire*?
7. What is the essence of the quotation from Adam Smith?
8. What did the late President Harding mean when he called for "less government in business and more business in government"?

II

1. How would you proceed to secure a patent?
2. Make a short list of inventions that have revolutionized American life and industry. Were they patented? Did the inventor reap the reward?
3. Make a list of ten trade marks. Do you think that they really help the business?
4. Are most books copyrighted? Is this book copyrighted? How do you know that this book is copyrighted? In whose name is it copyrighted? Do authors or publishers secure copyrights?
5. Because of increased costs of labor and material a street railway president considers a five-cent fare inadequate. How would he proceed to get an increased fare?

III

1. What is meant by the *laissez-faire* policy of government toward industry as advanced by Adam Smith? Why was this policy abandoned in the nineteenth century? What is the present attitude of government toward industry?
2. Is the present tendency toward or away from a greater

participation on the part of government in the production of wealth? State and explain some illustrations of your answer.

3. The principle of *laissez-faire* has suffered many set-backs in the application of freedom of contract in the relation of employer and employee. Give two instances of such set-backs.

4. Ought the government to guarantee every man work? Defend your answer.

5. Should the government supply every legitimate business with all the capital that it feels it needs? Answer yes or no, and then explain your answer fully, giving your reasons.

6. If let alone, the present economic system will give us the fullest material benefits that the world has in store for us.

(a) What do you understand by "let alone" ?

(b) Does the history of the nineteenth century teach anything regarding the truth of this statement?

7. Where a large number of competing firms conduct the business of a country, the great advantage of a system of private enterprise over a unified communistic system is that less ability is required to make it work right. Explain.

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CHAPTER IX

LARGE-SCALE PRODUCTION, COMBINATIONS, MONOPOLIES

LARGE-SCALE PRODUCTION

Introduction. — Different branches of production vary greatly as to the size of the business unit which is best adapted to them. Large-scale production means that the business unit, whether a manufacturing establishment, a commercial enterprise, or a farm, employs a large amount of capital goods, and as a consequence, in some cases, also, a large amount of labor or of land. The ordinary example is that of the modern factory contrasted with the shop or handicraft system of former times. In the United States, although we find a beginning of large-scale industry in the textiles after the war of 1812, it was not until after 1850 that the transition from the hand trades assumed any importance, and not until after the Civil War that the tendency toward concentration into large establishments became very marked.

Large-scale manufacturing. — Large-scale production may be declared to be virtually the result of the factory system (1) with its use of machinery, (2) its mass production, and (3) its standardization or uniformity in products. In the United States the maximum number of manufacturing establishments in many branches was reached in 1870; since that time the number has been in some cases actually

diminished, while in all cases the average capital funds invested, the number of employees, and the value of the product per establishment have steadily risen. The following table illustrates the great increase in production :

TABLE 21

INDUSTRIES	AVERAGE PER ESTABLISHMENT							
	NUMBER OF ESTABLISHMENTS		CAPITAL		NUMBER OF WORKMEN		VALUE OF PRODUCT	
	1870	1900	1870	1900	1870	1900	1870	1900
Iron and steel . . .	726	668	\$161,523	\$858,371	103	133	\$274,878	\$1,203,545
Agricultural imple- ments	2,076	715	16,780	220,571	12	65	25,080	141,549
Carpets and rugs . .	215	133	58,329	334,205	56	214	101,217	362,349
Woolen goods . . .	2,891	1,035	34,184	120,180	28	67	53,755	114,425
Leather	7,569	1,306	8,076	131,214	5	40	20,774	156,231

This method of presentation of averages fails to show the real significance of the change, as it includes the small as well as the large factories. If we take the number of workmen as an evidence of concentration, it appears that a little over eight per cent of all the factories reporting employ about seventy-five per cent of the total number of workmen. To-day, over 42,000 workmen are employed in Chicago within a single inclosure by the Western Electric Company. In the forty years after 1870 the number of plants engaged in the iron and steel industry declined by ten per cent. But, during the same period, the average output per plant increased in value 671 per cent ; the average amount of capital funds invested per plant increased 1,317 per cent ; and the average number of employees per plant increased 313 per cent.

Large-scale agriculture. — In farming in the United States, the small farm of from twenty to two hundred acres

seems to be displacing the larger farm of five hundred acres and upward. Here we have a tendency to intensive rather than to large-scale farming.

The table below gives the average acreage of our farms :

TABLE 22

DIVISION	1850	1880	1890	1900	1910	1920
United States	202.6	133.7	136.5	146.2	138.1	148.2
New England } . . .	112.6	97.7	{ 104.0	107.1	104.4	108.5
Middle Atlantic } . . .			{ 91.7	92.4	92.4	95.4
South Atlantic	376.4	157.4	133.6	108.4	93.3	84.4
East North Central } . .	143.3	121.9	{ 104.8	102.4	105.0	108.5
West North Central } . .			{ 164.8	189.5	209.6	234.3
East South Central } . .	291.0	150.6	{ 120.5	89.9	78.2	75.0
West South Central } . .			{ 179.7	233.8	179.3	174.1
Mountain }	694.9	312.9	{ 298.9	457.9	324.5	480.7
Pacific }			{ 337.0	334.8	270.3	239.8

Professor Seligman's conclusion is that "large-scale production is, even in the United States, far less applicable to agriculture than to industry, chiefly because the lower cost resulting everywhere from machinery is, in the case of agriculture, partly counterbalanced by the increase in land values and the consequent changes in cultivation."

The advantages of large-scale production. — For more than a century, large-scale production has gradually grown in this country; its steady advance, particularly in manufacturing, transportation, and banking, has been due to *certain economies that can be employed by the large establishment* and which are not open to its small competitor. The business man must keep down his costs or go out of business. When we speak of the advantages of large-scale production, we wish to know exactly what we mean.

Let us suppose that there is a certain huge meat-packing concern with assets of \$50,000,000. It comes into competition with fifty small concerns with assets of one million dollars each. The large concern does as large a volume of business as all of the small ones combined.

When we speak of the advantages of large-scale production, we mean the advantages that the *big establishment has over each of its rivals*, and these advantages it enjoys merely from the fact of its huge size. The handicap of any individual small enterprise may not be exactly the same as that of every one or of any one of the others; but, compared with them all, the big establishment does enjoy certain advantages.

What are these advantages of large-scale production?

First, *economies in fixed capital goods*. By this we mean that the large concern will not be obliged to spend as much *per unit of product* for buildings, machinery, plant, and other durable capital goods as will each of its fifty competitors; hence an enduring advantage in keeping down costs per unit of product.

Second, *economies in circulating capital goods*. By this we mean that, compared with the costs of each of the fifty small concerns, the big one can save per unit of product, in such items as fuel, stock of goods on hand, etc.

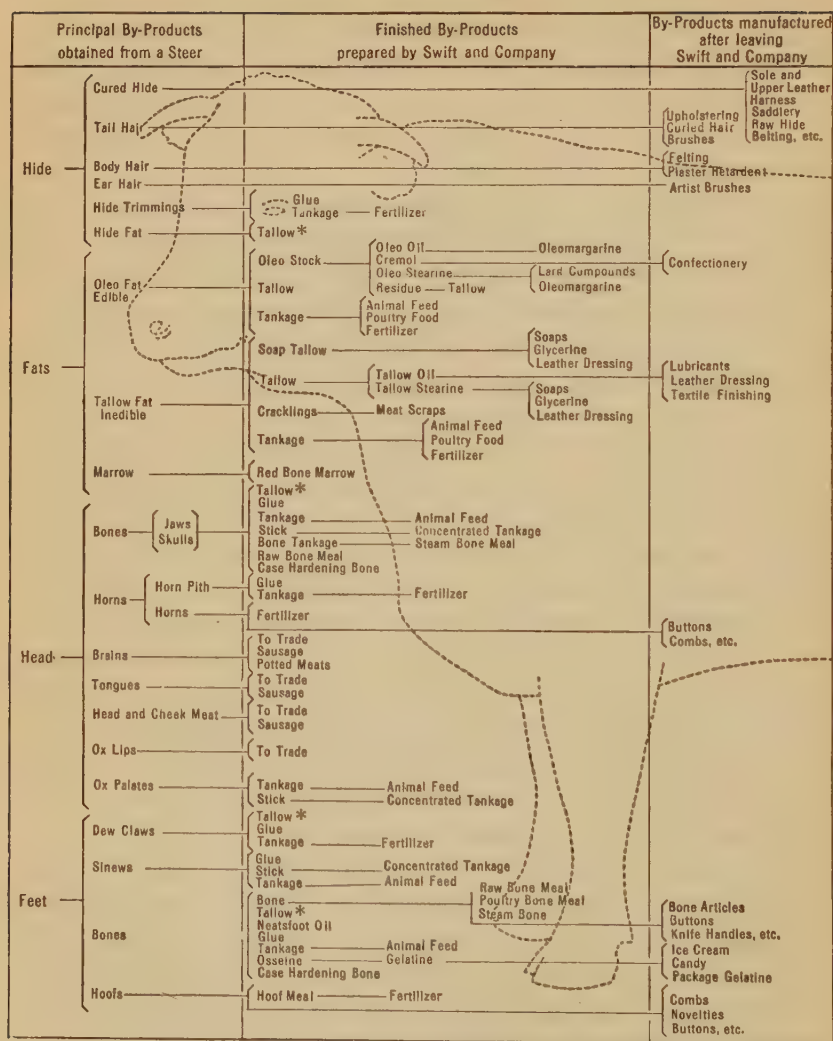
Third, the big concern has a great advantage when it comes to *purchasing supplies, raw materials*, etc. Any seller will gladly give to a purchaser who buys by the car-load lot or train-load lot lower prices than to one who purchases by the barrel, the ton, or any similar small lot.

Fourth, to the producer on a large scale there is available all of the *economies which grow out of a minute subdivision of labor*. By this we mean that no one of the fifty competitors can afford to set aside even one man, not to say several men.

to perform a very minute process in the production of the product, for the reason that most of the working day he would have nothing to do, although his pay would be going on just the same; but the very large producer can use him to advantage. Here, then, is another gain and another means of cutting down costs.

Fifth, the very large concern can afford to *utilize its by-products*. Good examples are found in the lignite coal and in the meat-packing industries. In the case of lignite coal, the main product is fuel, but, in the process of obtaining it, it is possible to derive other commodities, such as coal tar, dyes, ammonium salts, lubricating oils, perfumes, and a great number of other commodities. The meat-packing industry is also a splendid example of what can be derived from waste or by-products. Figure 48 presents, in a unique manner, the cattle by-products as actually found from the experience of Swift and Company, one of the large meat packers of the country. From this illustration it is seen that 54.3% of the live steer is beef; this leaves 45.7%, which to most of the small competitors is plain waste. Of this 45.7%, all but 29.6% is utilized by the big company. To the "little fellow" this is just loss; he does not have enough of the "waste" material to make any pecuniary gain by it, but the "big fellow" can utilize and sell all but 29.6% of it. Another gain for large-scale production.

Sixth, the large-scale producer can afford to carry on *expensive research and experiments*. Large-scale enterprise is in a better position to undertake experiments regarding the possibilities of developing new methods of production than a small one. Experimentation is costly; the experimenters must be paid, and sometimes permitted to carry on expensive projects, the success of which is problematical; small companies cannot afford to do this.



* Processed same as Tallow Fat (Inedible)

Courtesy of Swift and Company

FIGURE 48. PRINCIPAL BY-PRODUCTS OBTAINED FROM A STEER

Principal By-Products obtained from a Steer		Finished By-Products prepared by Swift and Company		By-Products manufactured after leaving Swift and Company
Blood		Fresh	Sausage	Textile Sizing
			Albumin	Weatherproof Glue
			Serum	Pharmaceutical Uses
		Dried	Blood Flour	
			Blood Meal	
			Plester Retardent	
			Animal Feed	
Casings	Wessand Bladder	Casings	Sausage, Lard and Cheese Container	Snuff Containers
	Intestines	Tallow *		Gold Beaters Skins
		Tankage	Animal Feed	Sealing Parchments
				Puffy Containers (Bladder)
	Heart	To Trade		
	Liver	Sausage		
	Sweetbreads	Neck	To Trade	
		Heart and Liver	To Trade	
			Sausage	
	Hanging Tenderloin	To Trade		
		Sausage		
	Tail	To Trade (Ox Tail)		
Misc'l	Kidneys	To Trade		
	Tripe	To Trade		
		Sausage		
	Thyroid			
	Pineal			
	Para Thyroid			Pharmaceutical Uses
	Pancreas			
	Pituitary			
	Suprarenal			
	Gall			Pharmaceutical Uses
	Gall Bag	Tallow *		
		Tankage	Animal Feed	
		Stick	Concentrated Tankage	
	Gall Stones			Incense
				Charms
				Medicine
				Perfumes
				Used in the Orient

Summary		
	Percentage of Green Product to Live Steer	Percentage of Finished Product to Live Steer
Beef	55.6	54.3
By-Products		
Hide	7.2	5.9
Fats	3.4	2.2
Head	3.4	2.2
Feet	1.5	1.1
Blood	3.8	.7
Casings	1.2	.8
Miscellaneous	7.0	3.2
Valueless Materials	10.1	10.1
Shrinkage	6.8	6.8
Additional Shrinkage Through Processing		12.7
Total Steer	100.0	100.0

*Processed same as Tallow Fat (Inedible)

FIGURE 48 (Continued)

Large corporations, such as those operated by the DuPont industries, maintain elaborate laboratories where corps of chemists and scientists of various sorts are kept constantly employed working out plans for the utilization of by-products of the business, such as the well-known "fabrikoid," developing processes of manufacturing dyes, etc. Research work has become a very important feature of large industries, but it is not feasible with small concerns.

Seventh, the large-scale producer enjoys the *advantage of cross freights*. What this means can be made clear by an actual illustration. Suppose that the United States Steel Corporation is in competition with a small New Jersey factory for an order from a St. Louis firm. At exactly the same prices the United States Steel will obtain the order. The reason is easily understood. The purchaser must "pay the freight" in any event. If he buys from the New Jersey firm, he must pay the freight for over a thousand miles; if he buys from the United States Steel, it will be necessary for him to pay the freight only from their nearest distributing point, from Gary, Indiana, perhaps, which is only two hundred and fifty miles away.

"*Cross freights*" constitute a very important advantage of large-scale producers, and may be defined as *the smaller freight charges for the shorter distances* that goods are shipped by freight. They are made possible by the establishment by the large-scale producer of many plants in different parts of the country; this renders it possible for the large-scale producer to ship direct from its nearest plant, thereby saving to the purchaser large sums in transportation expense. The shipper sells his goods "f. o. b.," that is, "free on board," and the purchaser must pay the freight.

Eighth, the advantage that accrues to a large concern because it has so many sellers, foreign and domestic, that it

acquires special knowledge of the requirements of individual markets. On the face of it, this may not seem to be a matter of importance; in actual business it may be decisive. For reasons it may not be possible to ascertain, a certain market may prefer that some particular article shall be done up in quantities of ten rather than in quantities of twelve. A large concern will learn this from its sellers; a small concern will not be aware of it. If a certain section of a market wants goods in tens, those firms that are willing to pack them in tens will get the trade; the others will get — left. German firms are willing to thus humor local markets; our firms are not always so ready to do it.

Ninth, very large concerns can take advantage of what economists call *the integration of industry* or what is also known as *the vertical combination of industry*. In mathematics, vertical is opposed to horizontal. Horizontal aggregation in industry means large-scale industry which includes a single branch, such as meat-packing, transporting, or banking. Vertical integration of industry means the consolidation, not only of a single branch of industry but the addition of allied or subsidiary concerns as well.

The best illustration, possibly, is the United States Steel Corporation. According to Professor Seligman, that corporation represented in 1903: 86 blast furnaces, 31 Bessemer and open-hearth steel works, 57 blooming, slabbing, billet, and sheet bar mills, 20 rail and plate mills, 251 puddling furnaces, 39 skelp mills, 59 bar, hoop, and cotton tie mills, 11 structural shape works, 24 rod mills, 22 wire mills, 447 sheet, black plate, and tin plate mills, 5 tube mills, 26 bridge and structural plants, 24 foundries, and 16 miscellaneous works. Vertical combination means the consolidation of all the processes concerned in a certain line of business, provision of raw materials, transportation, sales — in fact, the

whole enterprise; but that leads us to another division of our study, namely, consolidations, which we shall discuss shortly. (See also Figure 38, p. 147.)

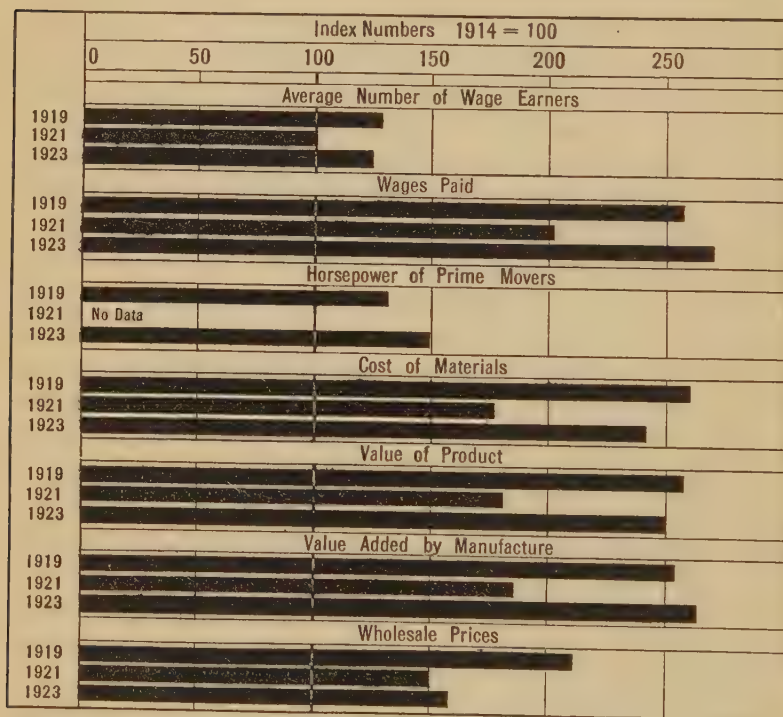


FIGURE 49. INDEXES OF CENSUS STATISTICS OF THE MANUFACTURING INDUSTRY

Is there any place for the small producer? — There surely is. Look around you. When you came to school to-day, did you pass more small or large business establishments? That is the answer. In certain lines "big business" has the best of it; but in others, the "little fellow" still persists. There are reasons, of course. If the "big fellow"

had it all his way, there would be no "little fellow." Why does the small concern still exist?

First, *moderate size may, in many cases, be the most efficient.* We have seen that in agriculture, large-scale production is out of place; the comparatively small farm does better than the large farm. This is also true of many enterprises. Most retail establishments are small concerns in spite of the growth of chain stores and department stores.

Second, *small producers may combine to obtain power from a central power plant.* Power is the life of modern manufacturing industry.

In Brooklyn, New York, there is a most remarkable exemplification of what is possible to the small producer in this particular. We have what is called The Bush Terminal. It is a district of at least a mile in extent on the shore front and extending back for about two blocks; it contains the largest and longest docks in the world; it has a complete freight yard; the railway tracks come to the doors of the buildings; the most modern structures for storage are here erected; a firm can rent power to run the machinery of a little room, 10' by 10', or, if it is preferred, power can be supplied for an eight- or ten-story factory, covering an entire city block. You ask, What does that mean in this connection? It means exactly this: A so-called "little fellow" can rent in this area exactly what he can pay for and use, and he will have at his disposal not only power but the best in transportation facilities.

Third, the small concerns may *combine or coöperate in utilizing waste and in experimentation.*

Fourth, one of the great disadvantages of large-scale production is that, under modern conditions, it must be organized as a corporation, which means that the personal relation between employer and employee is necessarily lost.

The "*little fellow*," on the other hand, *may come into direct, personal relations with those who work for him.*

Fifth, the *small proprietor can know his particular market and can render personal service* which his customers find very agreeable.

Several years ago there was no little alarm lest "big business" should drive out small enterprises entirely; but experience assures us that there is room for both.

COMBINATIONS

Definition. — A characteristic of our present industrial enterprises is a tendency to combination, by which is meant *the coming together under one management of a number of separate plants in an industry.* Our so-called trusts, such as the American Tobacco Company, the Standard Oil Company, the United States Steel Corporation, the unified street railway systems of many American cities, the great railway systems, and the chain stores are examples of combination.

Forms of combination. — Experience has developed different forms that these combinations may take; whichever form a particular combination does take does not alter the fact that it is a combination; we must understand that we are talking of different forms of the same thing.

First, the earliest form was the *gentlemen's agreement or the pool.* In this, the various competitors retain their individuality; but, at stated intervals, their representatives meet, usually in secret, and decide on a division (1) of the business, (2) of the profits, or (3) of territory. It was purely an agreement among rivals. Figure 50 illustrates this form of combination.

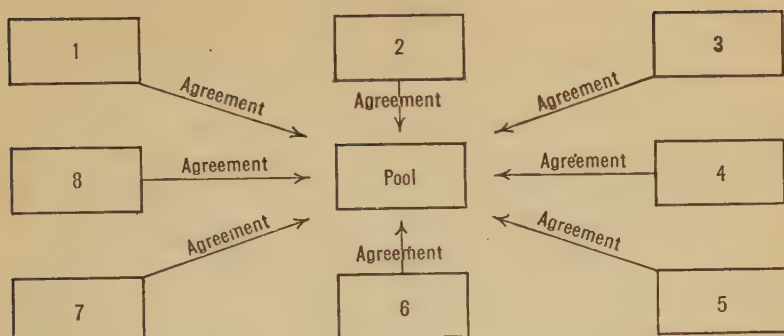


FIGURE 50. GENTLEMEN'S AGREEMENT OR POOL

The weakness developed in this form of combination was that almost always some of the members proved not to be "gentlemen"; their word was not as good as their bond.

Second, a more formal method was created in the *trust*. This word, trust, is popularly used to designate a large concern, presumably with tendencies toward monopoly. Legally, it has different significance. Any of you young people who contemplate studying law will learn that the subject of trusts is important in law. There is nothing illegal about a trust. All that it means is that a trustee acts for others; a trust company may be appointed to administer the will of a father who leaves an estate to care for his family after he has gone. Accordingly, in the trust, each of the rival concerns hands over all of the stock in the individual corporations to the trustee, who returns trust certificates. This gives control over all of the combining establishments to the trustee. Figure 51 illustrates the organization of a trust.

A trust is not illegal; but a combination in the restraint of trade, whether organized in the form of a trust or not, is illegal. It was so judged in the case of the Standard Oil Trust in 1892. To-day, the companies which were once in

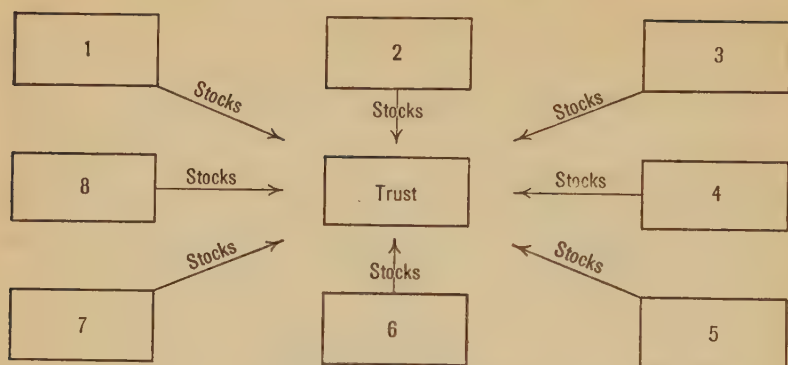


FIGURE 51. THE TRUST

the Standard Oil Trust are known as the Standard Oil Segregated Companies. They comprise the following list of independent corporations: the Standard Oil Company of New Jersey, the Anglo-American Oil Company, Ltd., the Atlantic and Refining Company, the Borne-Scrymzer Company, the Chesbrough Manufacturing Company, the Crescent Pipe Line Company, the Cumberland Pipe Line Company, Inc., the Eureka Pipe Line Company, the Galena-Signal Oil Company, the Illinois Pipe Line Company, the Indiana Pipe Line Company, the National Transit Company, the New York Transit Company, the Northern Pipe Line Company, the Ohio Oil Company, the Pierce Oil Corporation, the Prairie Oil and Gas Company, the Prairie Pipe Line Company, the Solar Refining Company, the Southern Pipe Line Company, the South Penn Oil Company, the South West Pennsylvania Pipe Lines, the Standard Oil Company of California, of Indiana, of Kansas, of Kentucky, of Nebraska, of New York, of Ohio, Swan and Finch Company, Union Tank Car Company, Vacuum Oil Company, and the Washington Oil Company. This long list of companies, as uninteresting in itself as Homer's catalogue of

ships, is given, not with the expectation that you will learn it; but, with the hope that it may help to impress upon you exactly what a combination really means.

Third, *the holding company*. In this case, the combining units form a new corporation which does not itself go into business directly; but it buys a controlling interest in each of the combining members; it can thus vote the majority of the stock of each member unit and thus control the policy of the entire combination. Figure 52 illustrates the organization of a combination owned by a holding company.

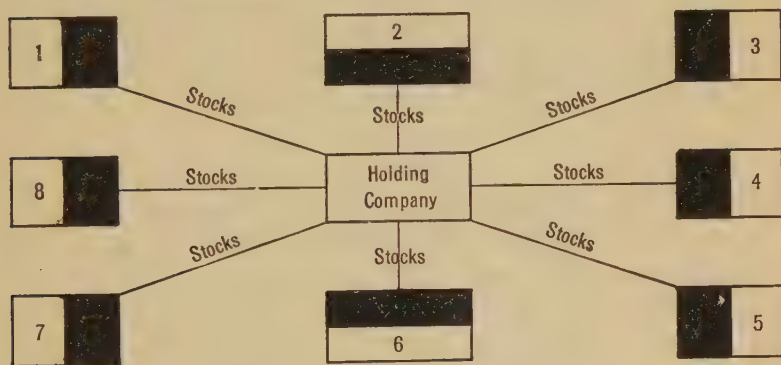


FIGURE 52. THE HOLDING COMPANY

The American Telephone and Telegraph Company is a holding company. (It is also an operating company for long-distance messages.)

In 1900, it acquired all of the property of the American Bell Telephone Company. It owns now either a large interest in or practically all the stocks of the Bell operating companies throughout the United States.

The more important of the companies owned or controlled are the New York Telephone Company, the Bell Telephone Company of Pennsylvania, the New England Telephone and

Telegraph Company, the Illinois Bell Telephone Company, the Cumberland Telephone and Telegraph Company, the Southern Bell Telephone and Telegraph Company, the Northwestern Bell Telephone Company, the Southwestern Bell Telephone Company, the Mountain States Bell Telephone and Telegraph Company, the Pacific Telephone and Telegraph Company, the Michigan State Telephone Company, the Wisconsin Telephone Company, the Ohio Bell Telephone Company, the Indiana Bell Telephone Company; it also owns substantial minority interest in the Bell Telephone Company of Canada and almost the whole of the capital stock of the Western Electric Company, Incorporated, and the Graybar Company.

TABLE 23

AMERICAN TELEPHONE AND TELEGRAPH CO. AND ASSOCIATED OPERATING COMPANIES: COMPARATIVE STATISTICS ¹

NOTE. — Mileage and number of telephones relate to December 31.

ITEM	1920	1921	1922	1923	1924
Total wire mileage . . .	25,377,404	27,819,821	30,616,522	34,523,842	39,893,619
Telephones owned . . .	8,333,979	8,914,155	9,514,813	10,406,155	11,242,318
Connected telephones . . .					
owned by other companies	4,267,956	4,466,064	4,535,752	4,593,946	4,664,232
Exchange messages daily .	31,835,000	33,671,000	36,831,000	41,109,000	43,981,000
Toll messages daily . . .	1,327,000	1,356,000	1,523,000	1,683,000	1,835,000
Gross revenue	\$461,134,725	\$510,740,047	\$564,038,384	\$623,116,097	\$677,902,813
Expenses	\$381,625,557	\$406,541,366	\$439,546,266	\$485,740,178	\$529,126,194
Net revenue	\$79,509,168	\$104,198,681	\$124,492,118	\$137,375,919	\$148,776,619

¹ Annual reports of the American Telephone and Telegraph Co.

Fourth, *the giant corporation or merger*. In this instance usually a new corporation is formed which absorbs the rival concerns; they disappear and are replaced by the giant corporation. Figure 53 illustrates the giant corporation.

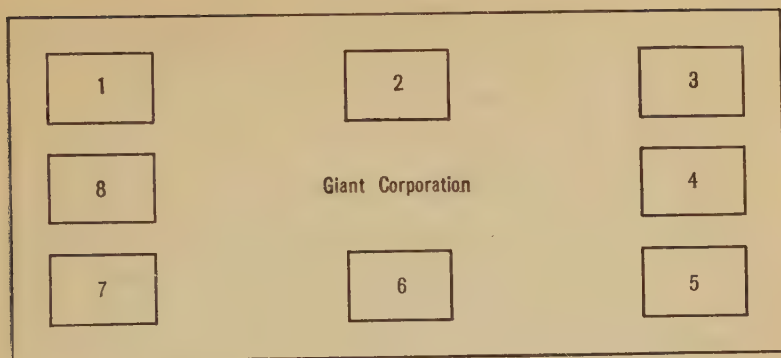


FIGURE 53. THE GIANT CORPORATION OR MERGER

The United States Steel Corporation is an excellent illustration of the giant corporation or merger form of combination. It was incorporated in 1901 in New Jersey. Exchanging therefor its own securities, it acquired practically the entire shares of the following companies: the Federal Steel Company, the National Tube Company, the American Steel and Wire Company, the National Steel Company, the American Tin Plate Company, the American Steel Hoop Company, the American Steel Company, the American Bridge Company, the Lake Superior Consolidated Iron Mines, the Shelby Steel Tube Company, and the Carnegie Company. In 1902, it acquired all the stock of the Union Steel Company which controlled the Sharon Steel Company, a tin plate company, and some small coal and coke companies. In 1903, the American Hoop, the Carnegie Company, and the National Steel companies were consolidated under the title of the Carnegie Steel Company, and several coke and coal companies under the name of the H. C. Frick Coal Company. In 1904, it acquired the entire stock of the Clairton Steel Company. In 1907, it acquired control of the Tennessee Coal, Iron and Rail Road Company. It also owns or operates

about 3,734 miles of railroad ; and it has large shipbuilding plants on the Hackensack Meadows, New Jersey.

These gigantic combinations have not gone unopposed nor uncriticized. The evils that have followed in their wake have had abundant publicity.

Among these evils has been (1) *cut-throat competition*. By this practice, a large-scale producer temporarily reduces local prices until a smaller dealer has been crushed. Another evil charged against combinations is (2) that they are *in restraint of trade*, in other words, that they *establish monopolies*.

The combinations, of course, have fought these charges in the courts ; in some cases they have lost. In 1904, the Northern Securities Company, a holding company owned jointly by the Northern Pacific and the Great Northern railroads, whereby they owned and controlled the Chicago, Burlington and Quincy Railroad, was held to be illegal, and the Standard Oil and Tobacco trusts were dissolved in 1910,¹ but, on the other hand, the United States Steel Corporation has been given a clean bill of health (1920) ; it controls only about forty per cent of the steel output, and the courts hold that that does not confer the power to fix the price.²

Legislation against "trusts." — Congress passed the Sherman Anti-trust Law (1890), the Clayton Anti-trust Law (1914), and established the Federal Trade Commission (1914).

These enactments (1) declare illegal combinations in restraint of trade, (2) prohibit (a) attempted monopolies in interstate trade (b) and interlocking directorates, (3) exempt labor unions and farmers' coöperative associations from the prohibitions of the law, declaring that "labor is not a commodity," (4) and forbid price discriminations in favor of

¹ 221 U. S. 1.

² 251 U. S. 417.

individuals or concerns. (5) The Federal Trade Commission was given powers of investigation and publicity.

MONOPOLY

Definition. — Large-scale producers are not necessarily monopolies; nor are combinations of rivals, in whatever form they may be organized. Some monopolies are large-scale producers, others are combinations; but large-scale producers, combinations, and monopolies are not synonymous terms. We can define monopoly as *such control over supply as gives the power to fix the price.*

Kinds of monopoly. — There are three different types of monopoly.

First, *natural monopoly*. Of these there are two subdivisions: (a) *natural resource monopolies* depending upon physical limitations in supply, such as diamond mines in Africa and anthracite coal in the United States; (b) monopolies due to *the nature of the business*; these are sometimes inappropriately called monopolies of organization.

They include such enterprises as water works, gas plants, electricity, telegraph and telephone companies, street railways, railroads, wharves and docks; in short, all of our so-called public utilities.

What do these industries have in common that we should group them together? It will be noticed that in each of them (1) the service rendered requires a very expensive plant, and (2) that, usually, there simply is not room for more than one. Our streets could not contain the water pipes of a dozen competing companies or the tracks of competing trolley lines or subways; competing telephone companies proved unsatisfactory and expensive, etc. So, these

firms are given monopolies, regulated on the theory that they are vested with a public interest.

Second, *legal monopolies*. These are monopolies established by law. They may be (1) the government monopoly of coinage, or the postoffice or the tobacco business in France, etc. Or, (2) they may be the temporary private monopolies conferred by patents or copyrights, granted, apparently, on the theory that it is socially wise, in these instances, to protect a private interest.

Third, *capitalistic monopolies*. Where, and if, it exists, this kind of monopoly is due to large aggregation of capital funds under a single control. Popularly, any highly capitalized combination is called a monopoly; but we have seen that this is incorrect.

Economists differ as to whether large size alone can create a monopoly. Professor Bullock, for instance, holds that where a large establishment actually can fix the price it is due, not to its size, but because it has a natural monopoly or a patent.

The law of monopoly price. — In competition, an enterpriser must carefully watch his costs, for, as we shall learn, costs are influential in determining the price at which he can sell his goods; to the monopolist, although costs are not the only determining factor, he, too, must study the effect of volume of business on cost per unit. The monopolist will fix his price *at the point of the largest net return*; this he can ascertain only through experimentation; *he cannot control demand*; he must not place his price so high as to discourage demand nor so low that his variable expenses more than absorb the additional income that flows from lower prices.

A street railway, for example, experiments with different rates of fare. Each time that it lowers the rate, a larger number of passengers is carried, but, at the same time,

variable expenses increase although net revenue may not. Study the following table until you really understand why the company may make more money at a six-cent fare than at any other rate.

TABLE 24

PRICE	NUMBER OF PAS- SENGERS	TOTAL EARNINGS	VARIABLE EXPENSE PER UNIT	TOTAL VARIABLE EXPENSE	FIXED EXPENSE	TOTAL EXPENSE	NET REVENUE
\$.10	600,000	\$ 60,000	\$.03250	\$ 19,500	\$50,000	\$ 69,500	\$-9,500
.09	800,000	72,000	.03125	25,000	50,000	75,000	-3,000
.08	1,200,000	96,000	.03000	36,000	50,000	86,000	10,000
.07	1,800,000	126,000	.02875	51,750	50,000	101,750	24,250
.06	2,500,000	150,000	.02500	62,500	50,000	112,500	37,500
.05	3,500,000	175,000	.02750	96,250	50,000	146,250	28,750
.04	5,000,000	200,000	.03000	150,000	50,000	200,000	—

It will be noticed that at .05 and .04 the variable expense per unit increases because at those prices the law of diminishing returns is operative. Obviously, a six-cent fare brings in the largest net return. That is the point at which a monopolist fixes his price.

EXERCISES AND PROBLEMS

I

1. What is meant by large-scale production?
2. In manufacturing, out of what has large-scale production grown?
3. What has been the tendency in the United States as to the number of manufacturing establishments? average capital funds employed? number of employees? value of product per unit?
4. How has large-scale production fared in agriculture? Why?
5. Exactly what is meant by the advantages of large-scale production?

6. Name nine economies possible in large-scale production. Give an illustration of each.

7. What are by-products? Why cannot the small producer profit by them?

8. What are "cross freights"? How do they help the "big-fellow"?

9. What is meant by the "integration of industry"?

10. Is there any place for the "small producer"? Give reasons.

11. What is a "combination"? a "horizontal" combination? a "vertical" combination?

12. Name and describe the four forms of combination.

13. What is a trust, in law? in popular parlance?

14. What is a "holding company"? Name as many as you can.

15. What is a "giant corporation" or merger? How does it differ from a trust? from a holding company?

16. What are the most important evils of combinations?

17. Summarize the legislation against trusts.

18. Define monopoly.

19. Name and define three different kinds of monopoly.

20. What is the law of monopoly price? Illustrate.

II

1. What has caused the tendency toward large-scale production? What are its advantages and disadvantages?

2. What are the differences between large-scale production and combinations?

3. Which do you think would supply the needs of your community better, one or two large department stores or a number of small shops? Why?

4. Is there any connection between the increase of the average size of business units and the establishment of schools of commerce and administration?

5. Is a tendency to concentration observable in agriculture in

the United States? in any other country? in commerce? in mining? If concentration should develop throughout the whole of industry, what do you think would be the probable political and social effects?

6. Why has not the division of labor proceeded as far in agriculture as in manufacturing?

7. Explain or refute: "The best interests of the monopolist are contrary to the best interests of society."

8. Can a monopolist charge as much as he pleases for his product? What determines the point at which the monopoly price tends to settle?

9. Suppose a monopolized commodity is produced under conditions of constant cost. What price will be adopted if the demand is (a) elastic, (b) inelastic?

III

1. Why is it necessary to regulate (a) railways, (b) "big business," (c) banks? State the method of regulation in each case.

2. What are some of the advantages of production on a large scale? Give two reasons why small factories and stores continue to exist.

3. Is it likely that large factories will ever be devoted to portrait painting? Give two reasons for your answer.

4. Define natural monopoly. Give two illustrations of natural monopoly and show why it would be better for the State to control natural monopolies than competitive business.

5. (a) Define monopoly price and show how it is determined. (b) Why does the law of monopoly price indicate the tendency of price rather than the actual price?

6. Distinguish between the capital (goods) of an industrial corporation and the capitalization. Show that a monopoly in any given industry offers a temptation to over-capitalization.

7. What reasons are sometimes assigned for government regulation of the coal-mining industry in the United States? Do you

regard such regulation as (a) desirable, (b) practicable? Give reasons.

8. State the law of monopoly price. A monopoly can produce an article at a cost of 60 cents. If it fixes the price at \$1.20, it can sell 1,000 articles; if it fixes the price at \$1.00, it can sell 2,000 articles; if it fixes the price at 75 cents, it can sell 4,000 articles. Which price will it fix and why?

9. (a) What are the reasons for the formation of trusts? (b) Enumerate the evils for which the trusts can be held responsible. (c) Is the tariff the "Mother of trusts"? To what extent is it responsible for the trusts?

10. Define *trust*. Give three illustrations of trusts and three reasons why trusts should or should not exist.

11. Roosevelt said (a) that good trusts should be allowed to develop, (b) that after they had developed they should be regulated. Give one reason for and one reason against the first policy. Give one reason for and one reason against the second policy.

12. In addition to being dangerous, the proposal to establish control in the meat, coal, and perhaps other industries are largely ventures in futility. Discuss.

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CHAPTER X

MARKETING AND BUSINESS CYCLES

MARKETING

What is marketing? — This is an innocent-looking question, but it is not so harmless as it appears. Around this topic rages heated controversy. Doubtless you have heard of the so-called “middlemen”; possibly you are familiar with the denunciation by some producers of what they term the “ill-gotten gains” of the middlemen; these gains, it is claimed, are ill-gotten, because the middlemen, it is said, render no *quid pro quo*; in fact they take what really belongs to others, particularly to those who are complaining.

What are the facts? Consumers need goods and services; producers furnish them. When are goods fully produced? Goods are in process of production *until they are in the hands of the final consumer*; and there are many steps between the raw material of nature and the finished product in the consumer's hands.

Productive industry we have already classified into various groups (page 33). The first group includes the producers of form utility, under which are (1) the extractive industries such as mining, lumbering, fishing, etc.; (2) the genetic industries, such as agriculture, stock-breeding, for-estration; and (3) manufacturing industries. The producers in the extractive and the genetic industries are rightly called primary producers because they are so near to nature, *but they are not the only producers.*

Marketing can be defined as *the necessary steps in the production of commodities between the primary producer or the manufacturer, on one hand, and the final consumer, on the other*. Those who perform these necessary steps are the *middlemen*. Figure 54 presents in diagram the place occupied by the middlemen, between the primary producer or the manufacturer and the final consumer. By *middleman*, then, is meant *any one of the links, in the process of production, between the primary producer or the manufacturer and the final consumer*. (Table 1, p. 35.)

Services rendered by the middlemen. — We live in a competitive society; unless any particular group of middlemen actually does something that facilitates production, the force of competition will weed them out; they will be “lost in the shuffle,” and will disappear. The fact that in present-day industry we find such a host of jobbers, wholesalers, commission men, brokers, bankers, railway men, etc., is, in itself,

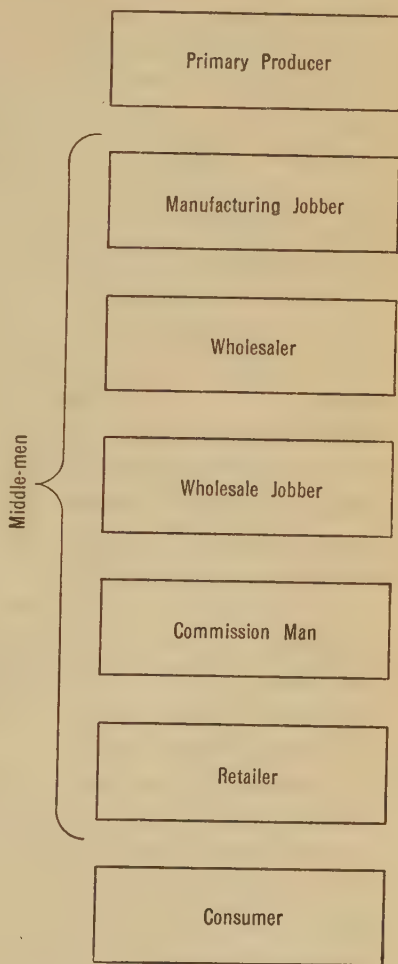


FIGURE 54. THE PLACE OCCUPIED BY MIDDLEMEN

presumptive evidence that they are needed to do the work of the world.

The functions of marketing have been classified into (1) the adjustment of the *place* at which goods are offered for sale to where they are desired by purchasers (transporting, assembling, and distributing, (2) the adjustment of the *time* at which goods are offered for sale to that desired by purchasers (storing), (3) the adjustment in the *quality* of goods offered to that desired by purchasers (grading), and (4) the adjustment in the *quantity* of goods offered and that desired by purchasers (assembling or dispersing).

What is it that the middlemen do to aid in production? (1) It is a middleman who arranges for the transportation of the product to the market and from the market to the consumer; (2) it is a middleman who attends to sorting, grading, and packing the commodity; in many lines this service is of inestimable importance; (3) it is the middleman who provides storage in elevators and warehouses; (4) it is often a middleman who negotiates with banks, thereby financing his clients; (5) and it is a middleman who sells the goods; not to mention (6) the direct services rendered by the railroads and by the banks. These are all productive agents; that they are such is plain when we recall our definition of production — the doing or the making of anything that satisfies a human want.

Middlemen's gains. — Illustrations of the "tribute" levied by middlemen for their services are given by Professor Carver in his *Principles of Rural Economics*.

For example, No. 1 Baldwin apples produced in Marlboro, Massachusetts, and consumed in Boston are sold by the "producer" for \$2.25 and cost the consumer \$7.50 per barrel. The difference of \$5.25 is accounted for as follows: picking, .25; barrel, .25; freight, .25; commission, .25; sorting,

.15; labeling, carting, etc., .10; storage, .50; wholesaler \$2.00; retailer, \$1.50.

Peaches grown in Peonia, California, are sold by the primary producer for .245, but the consumer in Denver pays .75 per box. The difference of .505 is accounted for as follows: commission, .045; cost of box, paper, and packing, .14; wholesaler, .20; retailer, .12.

The grower of rice in Arkansas receives .40 per bushel but the consumer in Boston pays \$4.16 per bushel.

The difference of \$3.78 is accounted for as follows: milling, .23; miller's profit, .21; wholesaler's expense, .15, his profit, \$1.00; retailer's expense, .16, his profit, \$2.00, etc.

TABLE 25

PROPORTION OF THE CONSUMER'S BEEF DOLLAR RECEIVED BY THE PRODUCER
FOR THE BEEF CONTENT OF THE LIVE ANIMAL¹

	AMOUNT	PER CENT	
Consumer pays for beef	\$87.68	100.00	
Retailer's expenses and profit	19.33	22.0	22.0%
Packer's expense and profit	13.55	15.5	15.5%
Transportation and marketing expense (live animal — beef content)	4.11	4.7	4.7%
Farmer receives for beef content of his animal	50.69	57.8	57.8%

¹ Courtesy of Swift and Company.

Efforts to eliminate the middleman. — At different times some producers have tried to eliminate other producers, not, be it noted, in order to benefit the "ultimate consumer" but with the purpose of diverting into their own pockets the "ill-gotten gains" of other producers. Several attempts have been made to bring "producer" and consumer together without the intervention of the "middleman."

First, *the mail-order house*. It may be a manufacturer as well as a large-scale buyer from other manufacturers; it may own saw mills, lumber yards, furniture factories, shoe factories, and various other mills and factories. Or it may take the entire output of factories and mills operated by others. All this it does to secure goods at the lowest pos-

TABLE 26

INDEXES OF VALUE OF SALES OF FOUR MAIL-ORDER HOUSES ¹

NOTE. — Monthly average 1919 = 100. Sales are affected both by price changes and seasonal movements.

MONTH	UNADJUSTED					ADJUSTED FOR SEASONAL VARIATIONS				
	1920	1921	1922	1923	1924	1920	1921	1922	1923	1924
Entire year . . .	103	72	79	99	105	—	—	—	—	—
January	120	69	65	89	98	121	70	66	89	100
February	122	65	59	84	96	134	71	65	92	101
March	131	95	84	112	105	113	82	72	98	91
April	108	78	77	103	114	107	77	77	102	111
May	90	60	70	98	90	105	70	81	113	100
June	87	62	69	86	89	104	74	82	103	104
July	81	49	58	74	69	109	67	79	100	93
August	80	56	57	73	74	105	74	75	96	98
September	91	73	75	92	106	94	75	78	95	112
October	104	89	109	134	141	81	69	85	104	109
November	126	83	110	122	131	100	66	88	98	105
December	98	80	108	118	148	80	66	89	98	123

¹ Sears, Roebuck & Co., Montgomery Ward & Co., Larkin Co., and National Cloak & Suit Co. Source: Department of Commerce, Survey of Current Business; and Federal Reserve Board, Commerce Year Book, 1924.

sible prices. But the unique feature of the mail-order house is its method of sales; it relies solely on attractively printed catalogues full of well-written advertising matter and illustrations. Customers order from the catalogue, each article bearing a stock number and price. The scale of operations of the mail-order houses can be seen in the fact that in 1924 Sears, Roebuck & Company did a business aggregating over 222 millions of dollars.

Second, *the department store*. The department store claims that it effects economies by eliminating jobbers, brokers, and importers, besides other savings through combination and organization, not open to small stores. A department store is in reality many "stores" under one roof and under a single management, each "department" cor-

TABLE 27

INDEXES OF VALUE OF SALES OF 359 DEPARTMENT STORES ¹
(MONTHLY AVERAGE 1919 = 100)

NOTE. — Sales are affected by price movement and are also highly seasonal.

MONTH	UNADJUSTED					ADJUSTED FOR SEASONAL VARIATIONS				
	1920	1921	1922	1923	1924	1920	1921	1922	1923	1924
Year . . .	120	110	111	124	125	—	—	—	—	—
January . . .	106	103	90	101	109	121	117	102	116	125
February . . .	90	91	81	90	102	116	117	104	117	127
March . . .	122	117	102	124	115	122	117	102	124	115
April . . .	121	115	113	119	133	117	110	109	117	130
May . . .	127	113	116	128	127	123	110	112	124	123
June . . .	122	111	110	126	120	122	111	111	126	120
July . . .	94	80	80	89	91	126	107	107	119	122
August . . .	94	85	89	100	93	121	108	113	128	119
September . . .	109	95	107	113	119	120	104	117	124	131
October . . .	132	124	131	148	141	118	110	116	130	124
November . . .	137	120	132	142	141	122	107	117	126	126
December . . .	184	173	188	202	210	114	108	117	126	132

¹Source: Federal Reserve Board. Commerce Year Book, 1924.

responding to a single small store. But it has special expenses of its own: enormous sums are paid out in advertising; rest rooms are often provided for its customers; some of them even have nurseries in which mothers can check their babies, and shop without hindrance.

Third, *the chain-store*. The chain-store enjoys many of the economies of the department store whereby it eliminates the middleman, but, unlike the department store, it deals in one general line only and has many different sites. The net sales of the F. W. Woolworth Company for 1924 were over 215 millions of dollars.

TABLE 28

INDEXES OF VALUE OF SALES OF CHAIN STORES
(MONTHLY AVERAGE 1919 = 100) ¹

NOTE. — The business is affected by seasonal causes. December in each year for each group is nearly always the maximum month. Comparisons are affected by changes in price levels.

PERIOD	GROCERY (27 CHAINS)	5-AND-10 (5 CHAINS)	DRUG (9 CHAINS)	CIGAR (3 CHAINS)	SHOE (6 CHAINS)	MUSIC (4 CHAINS)	CANDY (4 CHAINS)
1920	146	120	121	133	120	109	138
1921	130	124	123	132	113	86	142
1922	151	140	127	128	114	101	147
1923	188	165	144	135	123	113	176
1924	215	185	150	138	133	101	190

¹ Commerce Year Book, 1924.

Fourth, *producers' coöperative organizations*.² Examples are found in organizations of farmers in Dairymen's Leagues and of the fruit growers of California and Florida for the purpose of selling their products.

² See also pages 117-119.

What is a market? — A market is not a market-place; on the contrary, there may be several markets at one time in a single market-place.

A market is the coming together in agreement of the minds of buyers and sellers at a given time and at a given price.

In a given place at a given time there are as many markets as there are different prices. If, on the floor of the New York Stock Exchange, at a given time, New York Central stock sells at three different prices in three different parts of the room, then, at that moment, there are three different markets for that stock. Or, if you can buy, at the present moment, a certain grade of butter in your community at five different prices, then, in your community there are, at this moment, five different markets for that grade of butter.

Markets may be local, national, or international. In a well-organized market, such as that for wheat, there is a tendency throughout the world for wheat to sell at one price. This tendency in a market for a commodity to sell at one price is known as *the law of one price*.

The market for stocks and bonds. — Corporative securities are dealt in (1) by investment bankers and (2) by brokers. (1) *Investment firms sell both stocks and bonds "over the counter,"* much as other firms sell woolen and cotton cloth. (2) *Brokers buy and sell stocks and bonds for others.*

The principal market-place in this country for stocks and bonds is the New York Stock Exchange. This is organized like a gentlemen's club; there are about 1,100 members; applicants for membership qualify (1) by appearing before a membership committee where their character is fully investigated, and (2) by purchasing a "seat" at auction; the price of a seat varies with the activity of business. Of late years,

the price has held in the neighborhood of \$150,000. The government of the exchange is, like that of any other club, in the hands of a board of governors, elected by the members ; they make the rules and regulations which must be followed by the members under penalty of discipline, the extreme of which is expulsion.

There is one other smaller exchange in New York where stocks and bonds are dealt in, namely, the Curb ; formerly, the Curb met, literally, in the street, but they now have comfortable quarters indoors.

Before a security can be dealt in on the exchange, it must be "listed." This requires certain minute periodical corporation reports which are made public. (1) This publicity of corporation finances is one of the great services rendered by the Stock Exchange to the public. (2) Another service is that here one can always find a market for his security approximating its value, and (3) he can keep track of its price fluctuations by reading the daily stock reports published in the papers.

A large volume of the transactions on the stock exchange are not made by investors but by speculators who *trade on a margin*. A "margin" is a partial payment made by a "bull" or a deposit made for the protection of his broker by a "bear."

Some of these speculators buy and others sell. The "bulls" buy on a margin because they think prices are going higher, and they hope to sell at higher prices. The bull puts up with his broker a margin as a partial payment ; the balance must be paid within twenty-four hours ; the broker borrows the balance "on call," putting up the security purchased as collateral for the loan. "On call" means that the note signed by the broker and given to the bank lending the money is payable on demand rather than at any

fixed period, such as 60 or 90 days. Suppose that I have \$1,000 with which to operate. If I buy New York Central stock when it is selling at \$100 per share, I can buy ten shares. If my guess that it will go up is correct, then I shall make some money. It goes up, let us say to 110. I then sell out and get \$1,100. I have made \$100 less broker's commissions. But, suppose that I operate on a margin of ten per cent. I still expect that the price will go up, so I am "long of the market." By operating on a margin I am enabled to buy 100 shares instead of ten. They will cost \$10,000. I have only \$1,000, so the broker borrows \$9,000 for me. I now own 100 shares. The price goes up ten points and I sell out at 110. I have made, not \$100 but \$1,000 less broker's commissions and interest on the \$9,000. That is doing pretty well with my original one thousand dollars—is it not? That is the way the bulls operate on a margin. It is lovely, when they guess right. But, suppose they guess wrong! Then the losses are ten times as great as though they had "bought out-right."

Now, we shall suppose that I am a "bear." I think that prices will go down so I "sell short" 100 shares of New York Central. This time, also, I put up \$1,000, not as a partial payment on account but in order to protect the broker who acts for me. On my order he sells 100 shares; I do not possess a single share of the stock but he must deliver on my account 100 shares of New York Central stock within twenty-four hours. This time he borrows, not any money, but a certificate for 100 shares of the stock and delivers it on my account to the purchaser; he receives therefore, for my account, \$10,000. He now has the original \$1,000 I put up as a margin and the \$10,000 realized by the sale. I wait perhaps two weeks or a month, and, to my delight, the price for New York Central falls ten points, to

90. I order my broker to "cover," or to buy 100 shares of the stock at 90. It costs \$9,000.

The broker can now return to the party from whom he borrowed it a certificate for 100 shares of the stock. He had \$11,000 to my credit; he paid out \$9,000 for the stock; that leaves \$2,000 in his hands belonging to me — \$1,000, the original margin and \$1,000 profit on the speculative transaction.

If you are a bull, you *buy* first in hopes of selling out later at a higher price; if you are a bear, you *sell* first, hoping to buy later at a lower price in order to repay the stock you borrow to meet your contract of sale.

Operating on a margin is a dangerous game to play for the reason that you may guess wrong, in which case you will lose money just as rapidly as you will gain it if you happen to guess right.

The books of brokers prove that during a year only three per cent of their accounts show gains, ninety-seven per cent show losses.

And, yet, the speculators, unintentionally, perform some service to the public. (1) They furnish an organized market where securities can readily be turned into cash at a fair approximation of their value; (2) the fluctuating prices serve as an indication of what securities are likely to prove sound investments; (3) the price changes, also, serve as a basis of forecasting future business conditions, which are usually discounted by price changes, particularly by changes in stock prices. (4) Finally, the actual price changes themselves are less violent and their range is smaller because of these margin operations. When the bulls buy, they force the price higher; when they "take their profits," by selling, they tend to lower prices; when the bears "sell short," they depress the prices, but when they "cover," by buying, they force prices up.

TABLE 29¹ANNUAL AVERAGE PRICE MOVEMENTS OF STOCKS AND BONDS ON THE
NEW YORK STOCK EXCHANGE

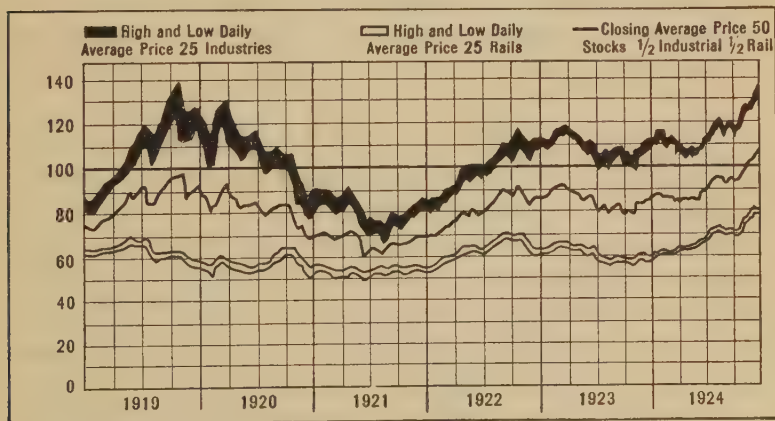
YEAR	STOCKS (DOLLARS PER SHARE) ²		PRICE INDEX, 40 BONDS (PER CENT OF PAR) ³	BOND YIELDS, MUNI- CIPAL BONDS (PER CENT) ⁴	YEAR	STOCKS (DOLLARS PER SHARE)		PRICE INDEX, 40 BONDS (PER CENT OF PAR)	BOND YIELDS, MUNI- CIPAL BONDS (PER CENT)
	25 indus- trials	25 rail- roads				25 indus- trials	25 rail- roads		
1913 .	58.19	82.97	—	4.45	1919 .	105.77	62.06	69.07	4.50
1914 .	58.08	77.57	—	4.16	1920 .	107.21	55.94	59.70	5.04
1915 .	75.35	73.16	76.76	4.23	1921 .	79.38	53.21	60.15	5.02
1916 .	99.14	80.05	80.49	4.06	1922 .	98.58	62.38	74.11	4.21
1917 .	85.44	69.12	75.58	4.31	1923 .	107.78	60.15	71.72	4.27
1918 .	80.98	61.34	69.84	4.58	1924 .	115.08	67.18	74.32	4.21

² Averages, as taken at the end of each week, of the closing prizes for these stocks.

³ These indexes are combined from the yields of the average prices of the selected bonds for each day of the month, the average yield for the 10 bonds of each class being capitalized at 4 per cent to give the combined index.

⁴ Average market yield of bonds of 20 larger cities at the end of each month since Jan. 31, 1917; previous figures are for the first of the month.

Sources: Don Jones and Company, *The Bond Buyer*, and *The Annalist*.

FIGURE 55. STOCK PRICES ON NEW YORK STOCK EXCHANGE
1910-1924¹

¹ Commerce Year Book, 1924.

TABLE 30
NEW YORK STOCK EXCHANGE TRANSACTIONS ¹

ITEM	1920	1921.	1922	1923	1924				
					TOTAL	JAN.- MAR.	APR.- JUNE	JULY- SEPT.	OCT.- DEC.
Stocks (millions of shares) .	227	173	259	236	282	66	49	64	103
Bonds (millions of dollars):									
Railway and miscellaneous	827	1,043	1,905	1,568	2,323	441	636	568	678
United States Government	2,861	1,957	1,873	796	898	253	262	212	171
State, municipal, and foreign	289	324	592	425	583	95	106	164	218

¹ Commercial and Financial Chronicle.

The grain and cotton markets. — The markets for grain and cotton are similar to the market for stocks and bonds in that they are located in an exchange on which brokers operate for clients in both buying and selling wheat, oats, etc., or cotton. In wheat and cotton, particularly, the market is international; that means that in Liverpool, Chicago, and Calcutta, for instance, *the tendency is for one price to prevail.*

In these produce markets, however, speculation is different from that on stock exchanges in that speculators buy and sell wheat or cotton for *future delivery.*

Suppose, for instance, that to-day is the first of June. You wish to speculate in wheat; you think that on September first next the price of wheat will be higher than it is to-day; accordingly, you buy 100,000 bushels of wheat at prices ruling to-day but deliverable on September first. You buy at \$1.50 per bushel, *i.e.*, you agree to pay \$150,000 for 100,000 bushels of wheat on the first of September next. You wait until the first of September, and find, at that time, that the price of wheat is \$2.00 per bushel. You can insist

that the party who agreed to deliver wheat at \$1.50 per bushel shall do it. After he has delivered the 100,000 bushels, you can turn around and sell it at \$2.00 per bushel or for \$200,000. You have made \$50,000 on the transaction although you put up only \$15,000 as margin. Or, instead of insisting upon the actual delivery of the wheat, you may say to your seller that, if he is agreeable, he can just pay the difference and not bother about the delivery of the wheat. He agrees, and pays you \$50,000. In this case, you have been "long of the market," in other words, you have been a "bull."

Similarly, you can operate on the "short side" of the wheat market by selling for future delivery. If you guess right and the price falls you can make money also. On June 1 you "sell short" 100,000 bushels at \$1.50 per bushel for delivery September 1; suppose wheat is selling at \$1.00 per bushel on September first. You buy 100,000 bushels at \$1.00 per bushel or \$100,000 and deliver it, receiving therefore \$1.50 per bushel, or \$150,000, thus making \$50,000; or you can allow your purchaser to settle by paying the difference or \$50,000.

In connection with these highly organized markets, *hedging operations* are sometimes carried on. Let us suppose that you are a miller; you own and operate a flour mill. To you, wheat is the raw material out of which you make your finished product, flour. You are a conservative business man and you wish to minimize the risks of your business as much as possible; you are especially desirous of eliminating all uncertainty in regard to the price of your raw material, wheat, because, as the price of your raw material, wheat, fluctuates, the price of your finished product, flour, tends to follow in its fluctuations.

It is the first of June and you calculate that by the first

of next September you will need the flour made from 100,000 bushels of wheat. In order to eliminate all speculative risks growing out of the uncertain price of wheat on that date, you indulge in a hedging operation. You enter into two contracts on June first.

First, you buy 100,000 bushels of "spot" wheat @ \$1.50, that is, you pay for the wheat at once, receive it, and proceed to grind it into flour.

Second, at the same time you "sell short" 100,000 bushels to be delivered September first @ \$1.47. On September first, "spot" wheat is \$1.40 and your wheat purchased in June is flour. To fill your short sale of wheat you buy 100,000 bushels @ \$1.40; you deliver it and receive \$1.47 for it. You have made an apparent gain of \$7,000 on your hedging operation; however, this is an apparent gain only because it is absorbed by the corresponding decline in the price of flour. By making the short sale you eliminated that risk; if you had not made the hedging contract, you would have lost approximately \$7,000 through the fall in the price of flour.

Another kind of operation sometimes indulged in by speculators is *arbitraging*. This involves taking advantage of different prices in different markets at the same time. We have said that the price of wheat is fixed in an international market. That is true, but there is only a tendency in all places for the prices to be the same; actually, they may not be. Suppose that on June first the price of September wheat in Chicago is \$1.50 per bushel but in Liverpool the price is \$1.75. You sell 100,000 bushels in Liverpool for \$1.75 and buy 100,000 in Chicago at \$1.50 per bushel. Of course you must pay the charges of transportation and insurance from Chicago to Liverpool. You make \$25,000 less the expenses, possibly, \$15,000, and you are ahead

PHASE	NOV.- DEC. 1903 TO NOV.- DEC. 1907	JAN.- FEB. 1908 TO JULY- AUG. 1910	SEPT.- OCT. 1910 TO NOV.- DEC. 1913
	Months	Months	Months
Phase 1: Depression	10	6	10
(a) Security prices begin to advance; speculative activity increases.			
(b) Commodity prices continue to decline; business activity is sluggish.			
(c) Rates on commercial paper decline; bank reserves increase.			
Phase 2: Recovery	18	14	12
(a) Speculative activity is marked.			
(b) Business activity recovers; commodity prices begin to advance.			
(c) Rates on commercial paper begin to advance late in this phase of the cycle.			
Phase 3: Business Prosperity	10	4	8
(a) Speculative activity is checked.			
(b) Business activity and commodity prices continue to increase.			
(c) Rates on commercial paper continue to advance while bank reserves decrease.			
Phase 4: Financial Strain	10	4	4
(a) Security prices decline sharply; speculative activity is depressed.			
(b) The upward tendency of business activity and commodity prices is checked.			
(c) Rates on commercial paper remain high or stiffen and the banking situation is strained.			
Phase 5: Industrial Crisis	2	4	6
(a) Prices of securities reach bottom and speculative markets are panicky.			
(b) Commodities are liquidated, prices fall, and business activity slumps badly.			
(c) Rates on commercial paper reach maximum and bank reserves reach minimum. The crisis breaks.			
Length of complete cycle	50	32	40

FIGURE 56. THE FIVE PHASES OF THE BUSINESS CYCLE, 1903-14¹

¹ This table was constructed by Professor Warren M. Persons, of the Harvard University Committee on Economic Research.

\$10,000. Arbitrating transactions are also carried on in stocks, bonds, and foreign exchange.

BUSINESS CYCLES

Definition. — A complicated machine is easily put out of order; if some small part of your Rolls Royce or your “flivver” goes wrong, the machine may fail to function.

Since the Industrial Revolution, and with the growth in the size of business units, the extension of the use of division of labor, the growth of the mutual dependence of section upon section and of one country upon another, and the universal dependence of business upon borrowed funds, a new economic phenomenon has arisen. Business in modern days is characterized by pronounced “ups and downs,” good times are succeeded by hard times, and hard times by good times. The complicated business machine often fails to function properly. When we speak of business cycles, we refer to *the action or reaction in business affairs marked by (1) depression, (2) recovery, (3) prosperity, (4) financial strain, and (5) industrial crisis.*

Figure 57 represents these “ups and downs” since 1897.

The important crises in our history were those of 1825, 1837, 1847, 1857, 1873, 1884, 1890, 1893, 1900, 1907, the war panic of 1914, and the crisis of 1921.

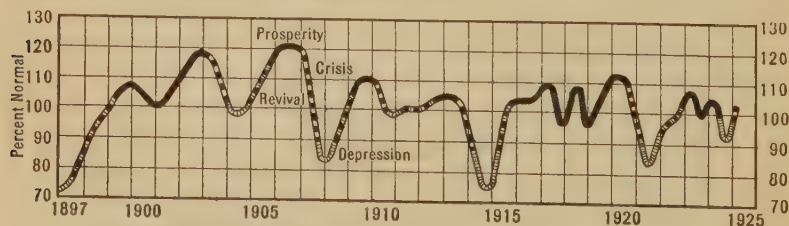


FIGURE 57. THE BUSINESS CYCLE AND SECURITY PRICES
1897-1925¹

¹Courtesy of Barron's.

TABLE 31

FAILURES IN MANUFACTURING, TRADING, AND OTHER COMMERCIAL BUSINESS,
AND BANK SUSPENSIONS, 1923¹

(Liabilities in Thousands of Dollars; that is, 000 Omitted)

	MANUFACTURING		TRADING		AGENTS, BROKERS, ETC.		BANK SUSPENSIONS	
	Num- ber	Liabili- ties	Num- ber	Liabili- ties	Num- ber	Liabili- ties	Num- ber	Liabili- ties
United States, total. .	4,968	281,316	13,064	209,930	686	48,140	578	203,739

¹ Statistical Abstract of the United States, 1923.

What causes business cycles? — Various explanations have been given, some of them inadequate, others fantastic, still others manifestly untrue.

1. *The sun-spot theory.* Professor Jevons of England developed the theory of the coördination between sun-spot cycles and industrial depressions. The sun-spots, he claimed, have a profound effect upon the weather and rainfall and that in turn affects the agricultural output. Professor Huntington has presented strong evidence to show that solar disturbances profoundly affect climatic conditions and rainfall, and these, in turn, have produced great historical and economic disturbances; but, as an explanation of business cycles, we shall have to bring in the Scotch verdict, "not proven." If sun-spots be the cause of our business cycles, it is not obvious what we can do about it.

2. *The theory of over-production.* If this means that there is a general glut of commodities, it is absurd; that implies that there can be too much wealth; but if it means that in some lines there is lop-sided production, and that, in those lines, there are more goods than can be sold at profitable prices, it sounds more reasonable.

3. *The over-speculation theory.* All students of the problem agree that over-speculation has something to do with depressions. During a speculative craze prices paid bear no relation to real values; a speculator will pay any price provided he thinks he can sell later at a still higher price. There is but one possible outcome to "boom prices," and that is eventual collapse when the "bottom falls out." Speculation appears to be a feature of, rather than a cause of, business cycles.

4. *The socialists' explanation.* The socialists claim that under machine methods production tends to increase faster than consuming power. Consumers are chiefly wage-earners whose incomes, they say, are determined not by the value of what they produce, but by the minimum on which they can live. Thus, it is claimed, that capitalistic methods produce a surplus, and this surplus accumulates and leads periodically to crises; endeavors to find an outlet for this surplus lead to economic rivalry among nations, to the exploitation of backward countries, to colonial expansion, and to wars. Of all this it can be said that at least it is eloquent.

At least this is true — wages do not tend to increase as fast as prices.

5. The most reasonable as well as the best reasoned explanation is the *theory of Professor Wesley C. Mitchell*, who finds that these industrial disturbances are inherent in our economic organization. This theory points out that in each phase of the cycle certain underlying conditions generate the next phase, thus causing an endless circular progression.

(a) At a time of depression, prices, interest rates, and wages are low and business almost at a standstill. In time, the accumulated stocks of merchandise are consumed and more is needed.

(b) Low costs encourage some business enterpriser to start production ; when he starts, he buys goods from others and also employs workers who spend their earnings on other products. All of this gives a slight boost to several industries ; business begins to pick up, and business men begin to be more sanguine ; an upswing in business starts, accompanied by renewed activity with rising prices, wages, and interest rates.

(c) Rising prices cause larger profits. Higher profits to the business men make them optimistic and they become willing freely to undertake risks ; some business men go beyond the bounds of prudence and become reckless. In the consequent expansion, it is borrowed funds that are used.

(d) Scinting danger, some banks demand payment of their loans to firms in some important industry ; the business firms in this industry cannot pay, and some of them fail. Many industries may be in an unsound condition. Rising interest rates, wages, and other prices pile up costs and they lose money.

(e) The failure of some large firm involving banking institutions frightens business men ; confidence is shattered. Banks in general refuse further loans and force their clients in many instances to liquidate their business, in other words, to sell out at any price in order to pay the money they owe to the banks. The crisis is in full swing and develops into a panic. Plants close and men are laid off. Unemployment brings down wages, unsold merchandise brings down prices, decreased borrowing brings down interest rates. We are now where we began and ready for another revival.

What is a panic ? — A panic is not the depression although it may immediately precede a depression. *A panic is irrational action on the part of a large number of people, inspired*

by fear, in which each looks out for his own interest regardless of that of others.

In school we have fire drills in order to avoid a panic ; at a time of real danger, if we could not empty the school building in an orderly manner, there would be a wild scramble for safety ; we should all act irrationally without regard for each other ; each would try to save his own life regardless of the consequences to others ; it would be a panic.

In a banking panic, depositors, in fear for their money in the bank, in a body make a run on the bank, that is, they demand immediate payment. Without warning and previous preparation, no bank can pay all of its depositors at once ; no bank keeps cash in its vaults, dollar for dollar of its deposits ; a bank has a " reserve " of cash only. In the case of a " run," if a bank cannot meet its demand obligations, it fails.

A panic in Wall Street is a general move to sell stocks, resulting in a collapse of prices which wipes out the margins of bull traders and a general reduction in value of securities to all holders.

Can anything be done to cure the evils of business cycles ?

— It may not be possible to eliminate entirely the alternation of good times with hard times ; but it may be possible to lessen the extremes of the fluctuations.

1. The business cycle rests upon mistaken estimates of the future by business men. Help is to be sought in more enlightened estimates of the business future. Of recent years, methods of forecasting the probable movements of business have been greatly improved ; and, in the future, these methods will acquire greater importance. Individual firms and trade associations are giving more attention to scientific analysis of the conditions affecting their own business. (See Classified Bibliography, p. 615.)

2. The Federal government is collecting, publishing, and supplying bankers and business men with the current economic facts upon which intelligent planning can be based.

3. Some assistance can be hoped for from so planning large public works as to avoid competing with private business undertakings.

4. The suggestion has been made that the Federal government should regulate the supply of credit; but political control of credit would be of doubtful general advantage.

EXERCISES AND PROBLEMS

I

1. When is a good fully produced?
2. What is marketing?
3. Who are "middlemen"?
4. What services are rendered by middlemen?
5. What efforts have been made to eliminate the middlemen?

Explain in detail.

6. What is a market?
7. What is "trading on a margin"?
8. What is a "bull"? How does he try to make money?
9. What is a "bear"? How does he try to make money?
10. What economic service is rendered to the public by organized speculation?
11. What is meant by "trading in futures"?
12. How can you "go short" on wheat?
13. What are "hedging operations"? Explain in detail.
14. What is "arbitraging"? Explain in detail.
15. What are business cycles?
16. Give Professor Person's five phases of a business cycle.
17. Give the sun-spot theory; the theory of over-production; the over-speculation theory; the socialists' theory. What do you think of each?
18. Give Professor Mitchell's theory.

19. What is a panic? a banking panic? a Wall Street panic?
20. What can be done to lessen the evils of business cycles?

II

1. How does inflation affect prices? What effect does it have on business cycles?
2. What was the "tulip mania" of 1636 in Holland?
3. What were the South Sea and the Mississippi "bubbles" of 1720 in England and France?
4. What is meant by "cyclical unemployment"?
5. Through what phase of the business cycle are we now passing? Explain.
6. Give in their order the events which occur in a business cycle.

III

1. It is sometimes said that panics are caused by (a) an expansion of credit, (b) by a contraction of credit. Explain this apparent contradiction.
2. Explain how over-production can cause a panic.
3. What is the effect of a financial panic on (a) the market price of securities, (b) the intrinsic value of the industries on which the securities were issued?
4. What is a panic? What causes lead to a panic? It is said that in 1907 millions of dollars were lost. Explain the meaning of the word "lost" in this statement.
5. The panic of 1907 had more to do with the establishment of the Federal Reserve System than any other cause. Explain.
6. A market in the economic sense is the area within which operate the factors that determine price. Explain.
7. Speculation, intelligently directed, renders economic service as a stabilizing influence. Explain how this is accomplished.
8. It is no part of the Federal Reserve Banks to finance a boom.
 - (a) Explain what is meant by a "boom."
 - (b) Show how the Federal Reserve Banks could finance a boom.

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CHAPTER XI

TRANSPORTATION

TRANSPORTATION AS A BASIC INDUSTRY

Characteristics of transportation. — Our economic system is mainly competitive; in a competitive society, unless an industry is necessary, it will be crowded out simply because it will not be self-supporting. In that sense, we can say that all of our present industries are necessary, otherwise, they would not be here. We can say, accordingly, that the grocery business is socially necessary; so is the shoe industry; so are lawyers and doctors.

Of transportation we can say that it, too, is necessary; in fact, every community is absolutely dependent upon it. New York City, for example, produces no coal, no meat, no grain, almost no milk, no wool, and no cotton; without transportation, its population would have to go without these necessities. A similar condition exists in connection with every other community; none is self-supporting; none itself produces all that it consumes.

Without transportation, the territorial division of labor would be an impossibility; because of transportation you levy tribute, as it were, upon the whole country and the whole world, in fact, to provide you your breakfast. Your grape fruit comes from Florida or California; your shredded wheat comes from Niagara Falls, but the wheat out of which it was made came from Montana; your toasted bread was

made from flour that was ground in Minneapolis; your coffee came from Brazil; the eggs you eat come from some distant point, and so on down the entire list of your simple meal. Without transportation each locality would have to be self-supporting. Transportation truly is a basic industry.

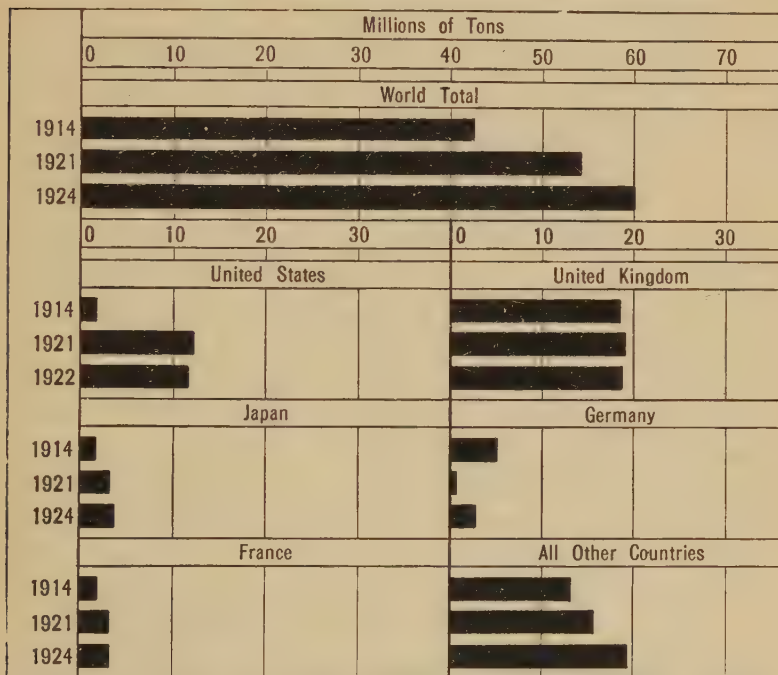


FIGURE 58. WORLD MERCHANT MARINE — GROSS TONNAGE OF STEAM AND MOTOR VESSELS¹

Development of transportation. — 1. In the opening up of our country, *the first highways were the natural waterways.* On the Atlantic coast, the Connecticut, the Hudson, the Delaware, the James rivers, and other streams led the early settlers inland. After the colonists had climbed the moun-

¹ Commerce Year Book, 1924.

tains, they came to the headwaters of the Ohio and the Great Kanawha rivers. Pioneers to the West floated down the Ohio; the Great Lakes were utilized also, especially after the invention of the steamboat.

2. *Wagon roads* were constructed and bound the East to the frontier. One of them, the Cumberland Road, was constructed under national auspices, but most of them were built and maintained by means of the "road tax" or the compulsory working on the roads so many days a year by every owner of land through which the roads ran, a peculiarly American procedure.

3. *The Erie Canal* was opened in 1825, and it greatly stimulated traffic on the Great Lakes; this canal provided an all water-route to the West, *via* the Hudson River, the Mohawk valley, the Erie Canal to Buffalo, thence by Lakes Erie, Huron, and Michigan to the Middle West. It also assured metropolitan proportions to New York City at the mouth of the Hudson and the gateway to the traffic of the world through New York harbor. Before 1825 Philadelphia had been the largest city in the country; but ever since that date, New York has held the lead in population.

4. And *the railroad* which traverses that natural trail inland, the New York Central, has great advantages over its rivals because it has no mountains to climb or to tunnel.

5. *Motor Cars.* *Babson's Reports* for March 23, 1926, present interesting information as to the distribution of automobiles shown in Table 32, on the preceding page.

THE RAILROAD INDUSTRY

Development of railroads. — The history of our railroads extends back almost a century; the Baltimore and Ohio was opened in 1830; beginning then, progress was at first slow.

1. *The first railroads were local affairs* centering around cities; a railroad map of the country for 1840 shows that around each large city there were tracks extending out in various directions somewhat like a suburban trolley system of to-day.

2. The next step was *to connect the various neighboring cities*. From New York up the Hudson River to Albany there were nine different lines joining the various river towns; from Albany west to Buffalo there were thirteen different lines connecting the Mohawk valley towns.

3. The next step was *to unite these distinct units into a through line*; the thirteen railroads between Albany and Buffalo became one, under the name of the New York Central Railroad; and the nine railroads between New York and Albany became one, under the name of the Hudson River Railroad.

4. The next step came naturally when the New York Central and the Hudson River Railroads were themselves united under the name of The New York Central and Hudson River Railroad; and *we now had a "trunk line" from the Atlantic coast inland*.

5. After connection was made with the Mississippi, *the next big development was the building of the transcontinental roads to the Pacific coast*. In 1869 the meeting of the Union Pacific from the Mississippi valley with the Central Pacific from the Pacific coast was celebrated by driving a golden spike. This was only a symbolic gesture, for the spike was not left where it was driven. Then followed the Great Northern, the Northern Pacific, and the St. Paul in the North, the Sante Fe and Southern Pacific in the South.

6. *The latest development of the railroads is the great railway "systems" of to-day*. A railway system is not a railroad but a great aggregation of many railroads running in

many directions, criss-crossing each other in a network of tracks, but they are all under one management or control. This control is secured by ownership of stocks of the various roads or by long leases. For illustration, take the New York Central Railroad Company. It was incorporated in 1914 in New York, Pennsylvania, Ohio, Indiana, Illinois, and Michigan; its properties comprise 6,920 miles of main line and branches with a total of 17,152 miles of track. Figure 59 presents a map of the New York Central system.

The next development? — For many years it was the practice for State legislatures to charter new railroads and then to encourage them to compete with each other; in the competitive struggle the roads soon learned that *competition was ruinous*; they, then, in self-defense *tried to combine into pools for division of profits, of business, or of territory*. Pools were declared to be illegal and were prohibited, as were discriminations and rebates.

What many believe to be a great step forward was taken in the Esch-Cummins law of 1920, which took the war-time operation of the roads out of the hands of the United States government and returned the roads to their owners. This law not only does not condemn consolidation; it encourages it, but under the supervision of the Interstate Commerce Commission. It is hoped to weld into nineteen or twenty great systems the 200,000 miles of railroads in the whole country. It will repay you to follow closely the current development of this policy.

The railroad business is basic. — Not only is transportation a basic industry, but *the railroad business is basic in a sense that other necessary industries are not*. Grocery stores are necessary; but no individual grocery store is socially necessary; railroads are also necessary; but, and here is the difference, each individual railroad is socially necessary.

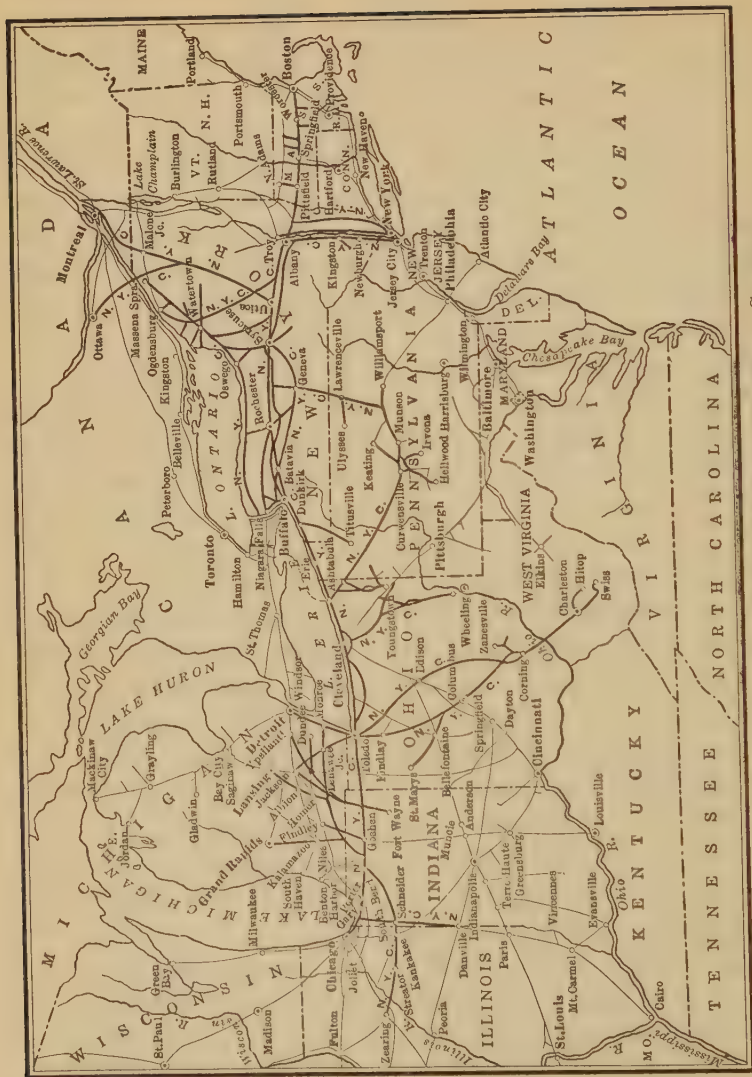


FIGURE 59. THE NEW YORK CENTRAL RAILROAD SYSTEM

The discontinuance of any individual grocery store in your community would not be a public calamity; but the discontinuance of an individual railroad would be a great disaster to a host of people.

For that reason *it may sometimes be imperative that railroad rates shall be increased.*

(1) This may cause readjustments of general prices in many markets; (2) it may change the location of industries; (3) it may change the direction of traffic; (4) it may even cause changes in the rate of wages paid laborers. (5) All of these readjustments are serious; but, presumably, *they would not be so serious as would be the discontinuance of the transportation service of the railroad; and that might be the only alternative to increasing the rates on that railroad.*

Economic characteristics of railroads. — 1. *An enormous investment in fixed capital goods.* Think a moment of what it means to make a railroad. Suppose you are making a railroad from New York to Chicago. How would you like to walk from one of those places to the other? In making the surveys for the road not one man but many surveying parties have to traverse the thousand miles. The right of way must be purchased from thousands of landowners, grading must be done, bridges and culverts must be built, tunnels must be dug, tracks must be ordered, made, and delivered by steel mills, and then they must be laid, stations must be erected, yards must be provided, also, terminals and roundhouses; electric signals must be installed and locomotives and cars must be provided. Millions and millions must be expended before a single penny can be taken in.

2. *A large proportion of the expenses are independent of the volume of business done.* In manufacturing, it is expected that the capital funds will be "turned over" within the

year, and, in many cases, the annual gross earnings double or treble the capital funds. In railroading, gross earnings, on the average, have been not over twenty per cent of the capital funds invested. Taxes, rentals, interest on borrowed funds, administrative expenses, insurance and track maintenance are not determined by volume of business.

3. *In consequence, the railroad business operates under the law of increasing returns or decreasing costs.* As traffic increases the cost per unit tends to decrease. As a result, the railroads are either "princes or paupers." With about a normal volume of traffic they can just about cover fixed and variable expenses, but out of any increase over that they manage to save most of it for profits.

4. *The principle of "joint costs."* The only cost that can be figured in railroading is *the aggregate cost of the business as a whole*; this is known as joint cost.

No individual service has a complete individual cost of its own. Passenger service is performed on the same right of way as freight service; to a large degree the costs of the two services are inseparable. To determine the exact cost of handling an individual passenger or article of freight is utterly impossible. It is impossible to figure out with exactness how much it costs the railroad to send a freight train from New York to Chicago. How, then, could you figure out how much it costs to carry a piano on that train from New York to Pittsburgh?

It is possible by an intricate calculation to make an approximation of the average cost. For a given period, it is known how many cars have been hauled, how many miles they have been hauled, how many tons of freight have been hauled, and how many tons of freight have been hauled one mile. It can also be ascertained how much the entire service has cost; hence, it is possible to figure out the cost during that

period of hauling *one ton one mile*; but *it is only an average and an approximation*. It is of value to the management, for it enables them to learn whether during this period they were more or less efficient than during the preceding period; but *it is worthless in any attempt to use it as a basis for making railroad rates*.

You, as shipper, are not interested in averages. You want to know how much it will cost you to ship that piano from New York to Pittsburgh.

Hence it is that *the price of any railroad service cannot be determined by the cost to the railroad of that particular service; that cost is indeterminable and varies per unit with the amount of business done*. Therefore, *the rate is determined largely on the principle of the value of the transportation service to the particular commodity carried*. This is known as "*charging what the traffic will bear*." It is a particular application of the principle of monopoly price, which, you will recall, is fixed at the point of largest net return. *Charge as much as you can get and still retain the business*.

Freight rates are based on what the service is worth, and it is a curious historical fact that Judge Cooley, in the first annual report of the Interstate Commerce Commission as far back as 1888, laid down that principle. Here is what Sir William M. Acworth, the greatest world authority on railroads to-day, has to say in the new and helpfully enlarged edition of his invaluable textbook, *The Elements of Railway Economics*:

"The total railway revenue is made up of rates which, (1) in the case of traffic unable to bear a higher rate, are so low as to cover hardly more than out-of-pocket expenses; which, (2) in the case of medium-class traffic, cover both out-of-pocket expenses and a proportionate part of the unapportioned cost; and (3) which finally,

in the case of high-class traffic, after covering that traffic's own out-of-pocket expenses, leaves a large and disproportionate surplus available as a contribution towards the unapportioned expenses of the low-class traffic, which such traffic itself could not afford to bear.

"This, in principle and in outline, is the system of charging what the traffic can bear. It is the system which — the point must be reiterated — is, always has been, and, so far as we can see, always must be adopted on all railways, whether they be state enterprises or private undertakings."

5. *Freight classification.* In practice, therefore, a great schedule is constructed; goods in different classifications are carried at different rates.



FIGURE 60. THE LONG AND SHORT HAUL

If that piano you wished to ship from New York to Pittsburgh is in Schedule M, it will pay one rate; but if it is in Schedule R, it will pay another rate.

6. *The long and short haul.* Obviously, it is unfair, *conditions being the same*, to charge more for a short haul than for a long haul. It would seem unfair, for instance, to charge more to carry that piano of yours from New York to Princeton, New Jersey, than to carry it from New York to Pittsburgh. But conditions are not always the same. In case there is competition between terminals, say between New York and Pittsburgh but not at way stations, say, Princeton, New Jersey, merely because a railroad must cut rates between New York and Pittsburgh, it should not be compelled also to cut rates between New York and Princeton; that might be financially ruinous to the railroad. Figure 60 presents the case graphically.

On account of water competition through the Panama Canal, the transcontinental roads are allowed by the Interstate Commerce Commission to charge more from Mississippi River points to Denver and Spokane than from those same points to Pacific coast destinations. In fact, the rate from Kansas City to Denver is the rate from Kansas City to San Francisco and back to Denver.

7. *"Cut-throat" competition.* Another peculiarity of railroading is that when two roads start in to fight each other, it literally means war to the death. In self-defense, the railroads have sometimes been tempted to favor large shippers by discriminations for train-load lots as against car-load lots. That may start a war, the consequences of which may be failure and bankruptcy. During a "rate war" years ago for about a week the passenger fare from Kansas City to San Francisco was seventy-five cents; no wonder that the Union Pacific went into the hands of a receiver. The nature of the

railroad business has been learned slowly. The public long failed to recognize that it is monopolistic and it insisted on competition although competition brought with it the evils of discrimination, rebates, and bankruptcy.

Attitude of the public towards railroads. — The earlier attitude was most favorable and friendly. Every community wanted a railroad; cities, counties, States, and Congress vied with each other in encouraging the building of competing roads.

Subsidies, loans, and land grants were poured into the treasuries of the railroads.

After the Civil War, public opinion, particularly in the West, became hostile; rate discriminations, rebates, and corrupt political activity stirred up opposition on the part of the public.

State railway commissions made little progress in solving the railway problem; and in 1887 Congress created the Interstate Commerce Commission. Its powers have been enlarged from time to time.

Railroad legislation to-day. — (1) Extortionate charges, (2) discriminations, (3) pooling, except under control of the Interstate Commerce Commission, (4) free passes, and (5) rebates are prohibited by Federal law.

The Federal government through the Interstate Commerce Commission has control over (1) railroads, (2) express companies, (3) sleeping car companies, (4) private car lines, (5) telephone lines, (6) telegraph lines, and (7) pipe lines.

The Interstate Commerce Commission consists of eleven members and exercises important powers. (1) It must "determine and prescribe a just and reasonable rate"; (2) it can suspend any proposed changes in rates pending an investigation; (3) it is making a physical valuation of all railroad property as a basis for making rates; (4) it can

establish minimum rates and divide the rates among the carriers; (5) it can establish State rates when the existing State rates unjustly discriminate against interstate or foreign commerce; (6) it exercises exclusive control over the issuance of securities; (7) it can and has suspended the operation of the long- and short-haul clause of the Act of 1910; and (8) it can compel the common use of locomotives and terminals. It also has the power to supervise the further consolidation of the railroads of the country.

The Federal Labor Board. — Machinery was provided for settling labor disputes on the railroads by the creation in 1920 of the Labor Board, which was authorized to hear disputes which could not be settled voluntarily by adjustment boards; but the Board was not given the power to enforce its awards.

The railroad labor act of 1926. — Upon the enactment of this law, the Railroad Labor Board, established in 1920, ceased to function, and the control of wages and working conditions in the railroad industry was restored to employers and employees.

The law was framed by representatives of the railroads and representatives of their employees, and was passed by both houses of Congress without a single change of any importance. Critics of the law expressed the belief that it did not sufficiently safeguard the interests of the public. As President Coolidge said in signing it, however: "If the operation of the plan should demonstrate that greater protection is needed, it can easily be supplied by a later Congress."

The significance of the act is that the United States, having exercised for several years a complete control over both rates and wages in the railroad industry, is now turning back the control over wages and working conditions to those

directly concerned, at their request and on terms agreed to by them.

The plan decentralizes the settlement of railroad labor disputes.

1. They are first to be considered, and, if possible, settled by *conference* between the parties directly involved.

2. Concerning the interpretation of existing agreements, not concerning changes, *Adjustment Boards*, to be established by common consent, shall have jurisdiction.

3. A *Board of Mediation*, of five members appointed by the President, may intervene in any unsettled dispute.

4. If unsuccessful itself, the board will propose *arbitration*. The law specifies how arbitrators shall be chosen and declares their awards, when accepted, binding as law.

5. If all attempts, as outlined, fail to effect a settlement, the Board of Mediation shall notify the President, who shall then appoint a *Board of Investigation* to report within thirty days. Until such a report has been completed, and for thirty days thereafter, the parties to the dispute are bound under the law to make no changes affecting the dispute except by mutual consent.

6. Control over railroad rates remains in the hands of the Interstate Commerce Commission, through which body, indirectly, the public continues to control the whole industry.

EXERCISES AND PROBLEMS

I

1. In what sense is transportation a basic industry?
2. Make a list of the food you had for dinner yesterday, placing along side each item where it came from.
3. What part did our natural waterways play in opening up the country to the Europeans?

4. What is the meaning of the word "metropolis"? Why is New York the metropolis of the country?
5. In a connected narrative give the steps by which our railways have developed.
6. What is a railway system? Name at least six big ones. Find on a map where they run.
7. What is the latest in railway consolidations?
8. In what sense is railroading a basic industry?
9. What is the significance of the fact that the railways own such large amounts of fixed capital goods?
10. What is the law of increasing returns?
11. Define the principle of "joint costs." What are its effects on railroading?
12. What is meant by "charging what the traffic will bear"?
13. What is freight classification?
14. Why is it sometimes just to charge more for a short than for a long haul? Illustrate.
15. What is "cut-throat" competition? How did it affect the railroads?
16. Trace the changes in public sentiment towards the railroads. What is it now? Illustrate.
17. What are the legal prohibitions in force against the railroads?
18. What companies are regulated by the Interstate Commerce Commission?
19. What are the most important powers of the Interstate Commerce Commission?
20. What can the Federal Labor Board do and what has it done?
21. Give the chief features of the railroad labor act of 1926.

II

1. Was the experiment of government operation of railways during the Great War a success? Give reasons for your answer.
2. Why was State regulation of railways a failure?

3. What is the "physical valuation of railroads"? As far as it has gone, has it shown that the railroads are under- or over-capitalized?

4. Has the railroad problem been solved? Give reasons for your answer.

5. Does public policy require that freight rates shall be less than it costs to carry the goods, entailing public taxation to make up the difference between cost and price? Give reasons for your answer.

III

1. What is the "Plumb plan" of operating railroads?

2. Mention two ways in which the government regulates railroads. Justify this regulation.

3. How has the development of transportation methods influenced (a) the scale of industry, (b) the localization of industry, (c) the distribution and concentration of population? Illustrate in each case.

4. What are the fixed charges of a railroad? Show how these charges affect (a) the regularity of profit, (b) the tendency toward combination, (c) the cost of transportation with varying volume of traffic.

5. Our first mistake in dealing with the railways was made when we undertook to regulate their rates with an eye to the interest of the shipper and without regard to the need of the roads for new capital; our second when we thought of railroad capital first, and then of the shipper. Discuss.

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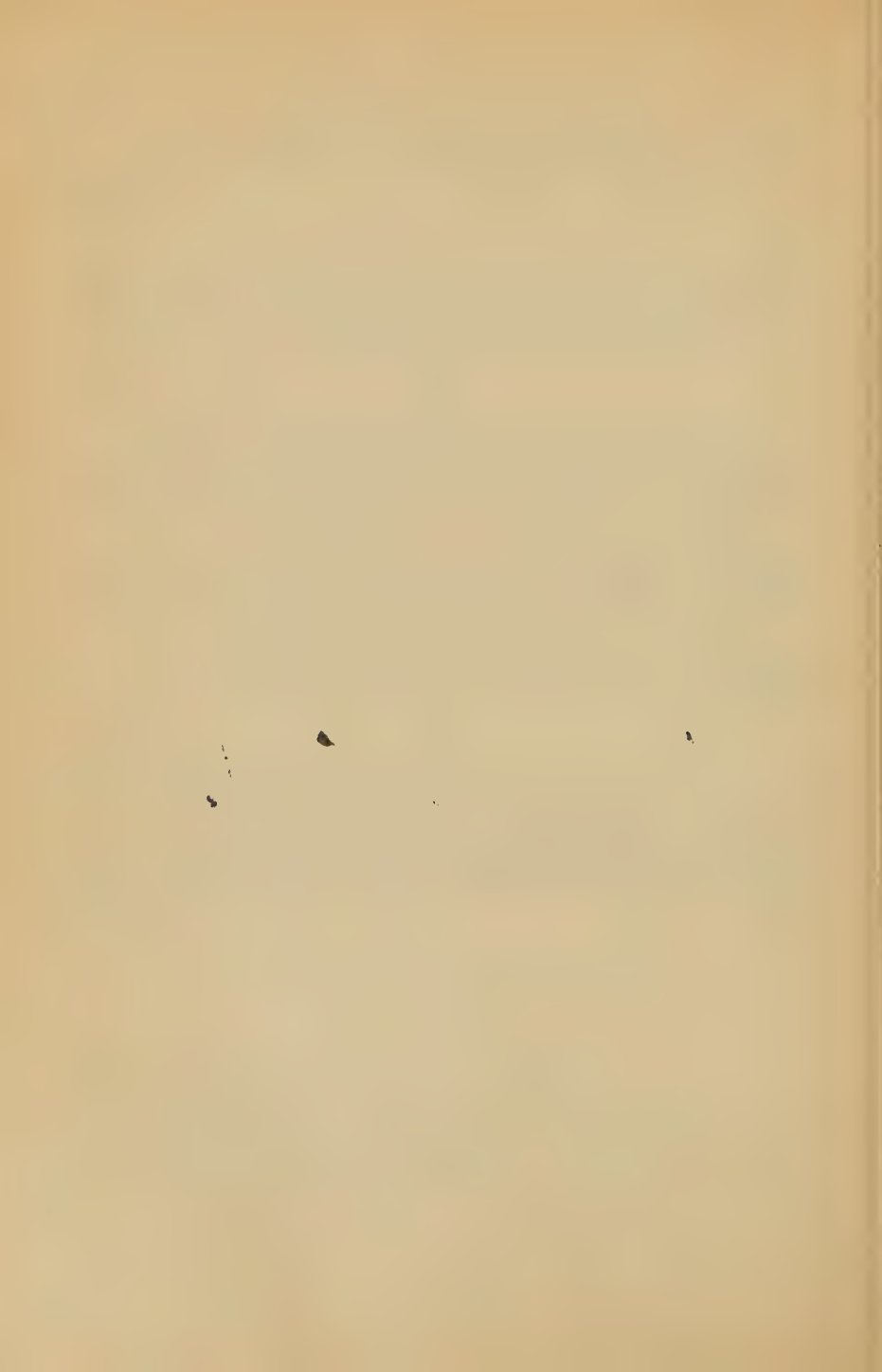
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PART IV
DEPARTMENT OF EXCHANGE

CHAPTER XII

PRINCIPLES OF EXCHANGE

VALUE AND PRICE

Definition of exchange. — Production in modern days is chiefly for the market ; wants are satisfied almost entirely by goods or services obtained in exchange for other goods or services. Goods pass from the hands of producers to the hands of consumers through the medium of *Exchange* which we define as *the process whereby ownership is transferred*.

What is value? — If goods and services are to be exchanged, the determination of the terms of the exchange is all important. How much of this for how much of that? Equal values exchange for each other. Hence, the central problem of theoretical Economics is the problem of value. *Value is a human estimate of the importance of a commodity or a service*; it is within a person and not in the article or the service; it is subjective, and implies a person who values.

1. *Subjective value* or *value in use* is the estimate by an individual of the importance *to him* of a commodity or a service. Suppose that I hold in my left hand a fountain pen and in my right hand a necktie. I can say that I value one more than I do the other. You have at home an article of jewelry of little money value but it once belonged to a deceased friend ; its value to you is very great.

2. *Value in exchange* is the estimate by those comprising a market of the importance of a commodity or a service ; it

is expressed in terms of money and is *known as price*. The reason that you value a commodity or a service is that it is of use to you ; we speak of the utility of the fountain pen or of the utility of the piece of jewelry, by which we mean the capacity of these articles to satisfy our desires. If we have a series of goods, such as a dozen apples, we can call the sum of the utilities of the entire series *the total utility* of the series ; and the utility of the unit of the series which satisfies the least important want we can call the *marginal utility*.

Total utility is the aggregate utility of all the units of a series of goods. If the stock of wheat in the country is one hundred million bushels, the total utility of the stock of wheat is the sum of the utilities of each of the one hundred million bushels.

Marginal utility is the usefulness of the least important unit of a series of goods ; the least important unit of a series is that unit which, in fact, satisfies the least important want. Robinson Crusoe, the friend of our childhood, will help us understand marginal utility.

Robinson Crusoe, you remember, was stranded on an island. He had four sacks of corn. Here they are :

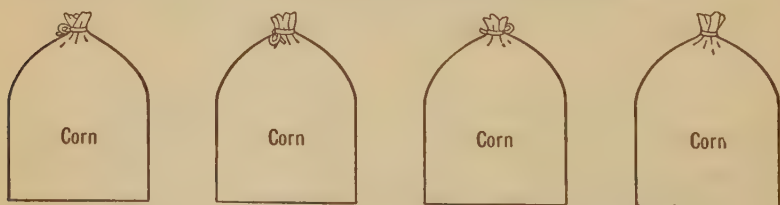


FIGURE 61. ROBINSON CRUSOE'S FOUR SACKS OF CORN

They form a series of goods. He does not use the four sacks for the same purpose. One sack he sets aside to maintain his life for the present ; another sack he uses for seed so as to be able to raise a crop next year ; a third sack he scatters

on the ground to attract wild fowl which he can thus capture and give himself a meat diet; and a fourth sack he devotes to feeding the monkeys that abound in the trees. Their antics amuse him.

Here, then, are four different utilities derived from the series of four sacks of corn. Which is the marginal utility? It is the utility which satisfies the least important want. We find which is, in fact, the least important want by supposing that through some mishap one of the sacks of corn is accidentally destroyed, any one of the sacks, even the one intended for present consumption.

What does he do now? He certainly does not go without food. He rearranges his schedule and eliminates the least important want, which is the pleasure derived from watching the gambols of the monkeys. The monkeys must go without their dainties. The marginal utility is the usefulness of the relaxation and recreation afforded by the sporting monkeys.

This distinction between total and marginal utility enables us to explain an economic puzzle which had long baffled the economists. They could not explain why a bushel of wheat sold for so little and a diamond sold for so much when every one knew that wheat was of vastly more importance to humanity than diamonds. This distinction makes the explanation easy. The total utility of wheat is greater than that of diamonds, but the marginal utility of the unit of wheat, a bushel, is very much less than the marginal utility of a diamond. On the basis of this distinction we shall get the law of marginal utility.

When we have a series of goods, each unit of which is devoted to a different use, by which use shall we measure the importance of a single unit? The answer to that question was in abeyance until the distinction was made between

total and marginal utility. That clew enables us to say, in the case of Robinson Crusoe, that he measures the importance of a unit of his series of goods, that is, the importance of a sack of corn, by his estimate of the importance of the pleasure derived from watching the antics of the monkeys. We come to this conclusion in the following way: He cannot measure the importance of a unit by the infinite importance he places on living this year, otherwise he would not use any sack for any other purpose; nor can he take the sack he intends for seed as a unit of measurement, otherwise he would not give any corn to the fowls or to the monkeys. The sack destined for the wild fowl cannot be the "yardstick," otherwise the monkeys would get no corn. There is only one use remaining, that of feeding the monkeys, and that is the use by which he measures the importance of any unit of the series.

We can generalize his experience, in the law of marginal utility, as follows: *The importance of any unit of a series of goods is measured by the importance of the least important unit of the series.*

Market price. — Value in exchange, market value, or price is either (1) *monopoly price* or (2) *competitive price*.

1. The monopolist has such control over supply that he can fix the price; and in his own interest, as we have seen (*ante*, page 206), he will fix the price at the point of highest net return.

2. Most prices, however, are not monopoly but competitive prices. It is competitive price which we shall analyze. *Competition is rivalry of buyers against buyers, of sellers against sellers; or rivalry of producers against producers and of consumers against consumers.*

The slightest knowledge of markets and prices reveals constant fluctuations as the most patent characteristic of

prices ; like the sea they are never at rest or like most human beings they have their "ups and downs." Price fluctuations are either short-time fluctuations or long-time fluctuations. Short-time fluctuations, such as may occur during a day, a week, or a month, are due to the "technical conditions of the market," that is, to the operations of "bulls and bears" who buy and sell on a margin ; these short-time fluctuations do not interest us at the moment.

We wish to explain long-time fluctuations. Why do they occur? On the next page will be found in Figure 62 a remarkable graph of commodity prices, 1782-1923. It is well worth your careful study ; it is an interesting exhibit of much modern history pictured on a single page. How do we account for the saw-tooth effect seen on this graph?

The theory of normal value. — In attempting to answer this question, economists have elaborated the theory of normal value or normal price. *Normal value or normal price* is defined as *the value or price around which long-time fluctuations occur and to which market price tends to return in its fluctuations*. It acts like a magnet, pulling down high prices and raising low prices. These ups and downs result from the operations of producers and consumers who are the ultimate sellers and buyers.

It used to be said that price changes depended upon demand and supply ; but this really shed little light on the problem. "Supply" is made up of the offerings of many producers and "demand" of the effective desire of many consumers.

Which producers and which consumers actually determine the normal price? Of course, the producer's cost of production must be covered, in the long run, but the cost of each producer is different. Which producer's cost of production fixes the normal price — that of the high-cost,

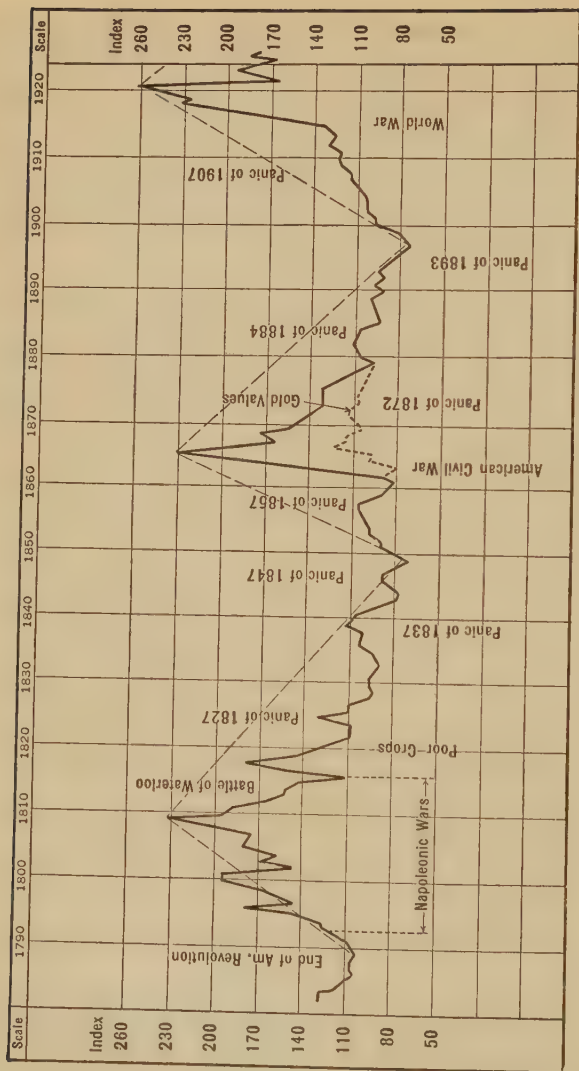


FIGURE 62. COMMODITY PRICES, 1782-1923¹
See p. 296.

¹ Courtesy of the Babson Statistical Organization.

the medium-cost, or that of the average-cost producer? None.

It is the cost of production of the *marginal producer*, the one whose cost of production is the greatest and whose contribution is necessary to meet the demand. As all producers receive the same price, the other producers enjoy a producer's surplus or profit, while the marginal producer covers only his cost of production. He receives no profit.

Nor are all consumers equally anxious to get the commodity. Some are willing to pay a high price, some a fair price, and some only a low price. The price an individual consumer is willing to pay depends upon his estimate of the utility of the good compared with his estimate of the utility of other commodities he might buy with the money. Some consumers are willing to pay more than they have to, and they enjoy a large *consumer's surplus*, which is *excess of satisfaction over cost*. Thus we see that it is the marginal consumer's estimate of utility which is influential in determining normal price. The *marginal consumer* is the *indifferent consumer* and his demand is very sensitive to price changes.

The normal price will be fixed at the point where the marginal producer's cost of production equals the marginal consumer's estimate of utility compared with the alternative uses he might make of the money.

Exceptions to the theory of normal value. — First. Some prices are known as *customary prices*. Because a certain price has been charged for a long time it is taken for granted that it is the proper price. For example, for a generation we have sent a letter for two cents; that price, accordingly, seems to most of us to be a just price. For many years, five cents was the price of a ride on a street car; to some people that seems to be the proper price.

Second. *Taxes* enter into price. If a tax is paid on a saleable article, the payer thereof tries to shift the burden by adding to the price not only the amount of the tax but an additional sum which might be called a profit on the tax.

Third. *Monopoly* prices are fixed, without direct regard for costs of production, at the point of the highest net return.

Fourth. Laborers cannot always move freely from place to place or from occupation to occupation; this condition is known as the *immobility of labor* (see p. 461), and may result in the non-conformity of wages to the theory of normal value.

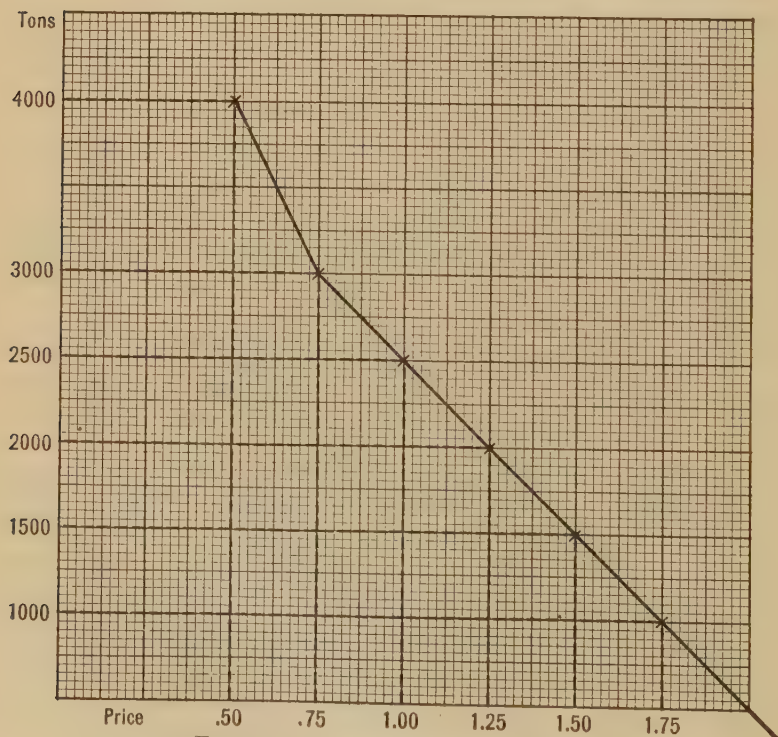


FIGURE 63. ELASTIC DEMAND CURVE

Fifth. Because of *large investment in fixed capital goods* some enterprises, notably railroads, require a long time to effect a "turnover" of capital funds (see p. 429); much of their gross income is needed to meet fixed expenses; the prices they charge are based on "what the traffic will bear" (see p. 245).

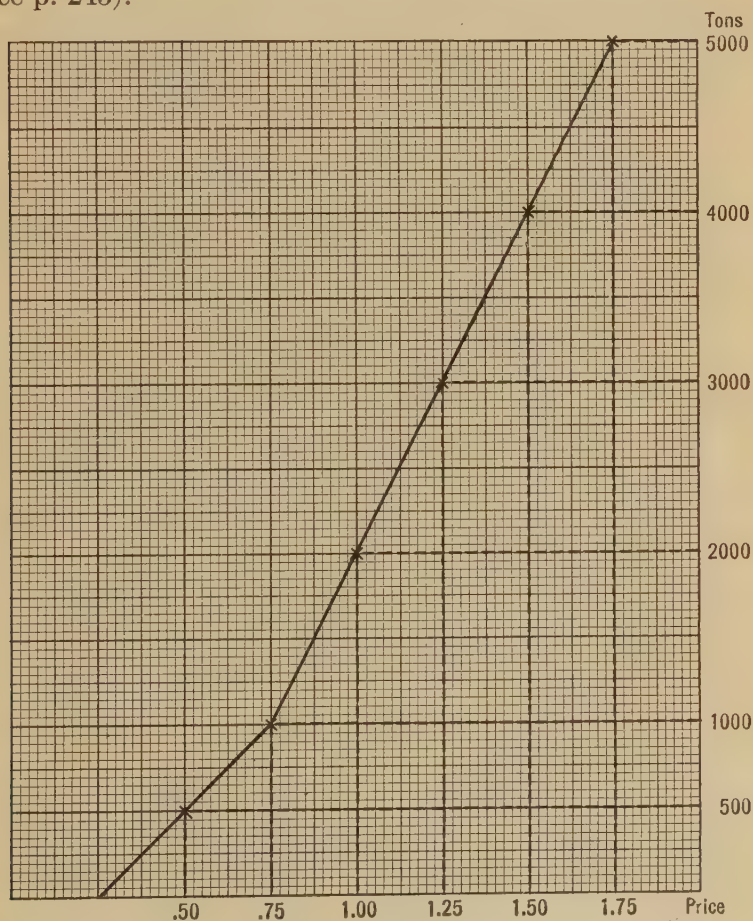


FIGURE 64. SUPPLY CURVE

Sixth. Many large enterprises enjoy the savings that accrue to them through the utilization of by-products. The cost of the main product and the by-products will be covered by the combined price of all of the products; it is another illustration of "*joint costs*."

Seventh. In some lines of business there are *speculative operations*. In such cases the prices for a time at least may be higher or lower than the normal price, depending on speculative conditions.

PRICE

Determination of market price. — Market price is the price in a given market at a given time: it is the price which "clears the market" by accommodating the largest number of buyers and the largest number of sellers.

Markets are made up of buyers and sellers. Each buyer has a maximum price he is willing to pay. Suppose that at \$1.75, 1,000 units will be taken, at \$1.50, 1,500 units will be taken, at \$1.25, 2,000 units will be taken, at \$1.00, 2,500 will be taken, at .75, 3,000 units will be taken, and at .50, 4,000 units will be taken. That will give us the elastic demand curve, in Figure 63, page 264.

Each seller has a minimum price he is willing to accept. Suppose that at \$1.75, 5,000 will be offered, at \$1.50, 4,000 will be offered, at \$1.25, 3,000 will be offered, at \$1.00, 2,000 will be offered, at .75, 1,000 will be offered, and at .50, 500 will be offered. That will give us the supply curve, in Figure 64, page 265.

The price at any moment is the price which will enable the largest number of buyers to buy and the largest number of sellers to sell. Market price is illustrated in Figure 65, page 267, which is a combination of Figures 63 and 64.

The market price curves indicate that the price will

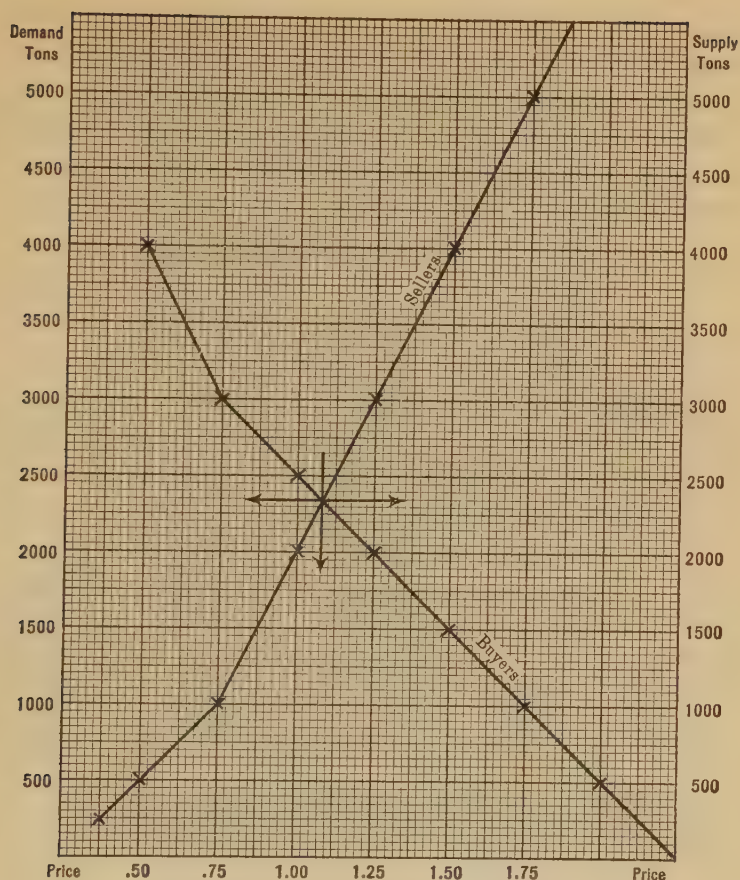


FIGURE 65. MARKET PRICE CURVES

be about \$1.09, because that price will accommodate the largest number of buyers and the largest number of sellers.

Of course we shall not make the funny mistake of thinking that the price is \$1.09 because the two lines cross at that point; the causal connection runs the other way — the two

lines cross at this particular point because the price is \$1.09.

Index number. — This term refers to that *number which expresses price levels of a given year by comparing it with that of another year, which is taken as 100.* A simple average would be made this way :

Iron	\$40.00 per ton
Wheat	2.00 per bushel
Cotton	.15 per pound
Wool	.12 per pound
	4)42.27
Simple average	10.58

A weighted average is made this way: We multiply the price by the number sold, which gives us gross values. Then we divide the total gross values by the total number sold, which gives us the weighted average : ¹

	Units Sold	Price per Unit	Gross Values
Iron	10,000	\$40.00	\$400,000
Wheat	50,000	2.00	100,000
Cotton	100,000	0.15	15,000
Wool	200,000	0.12	24,000
Total,	360,000		Total, \$539,000

Weighted average for the year is $\$539,000 \div 360,000 = 1.496$. This we call 100.

Similarly, we obtain the weighted average for four succeeding years. Suppose they are 2, 2.1, 1.8, and 1.3.

If 1.496 is 100, then

$$2 \text{ is } 2 \div 1.496 \times 100 = 133$$

$$2.1 \text{ is } 2.1 \div 1.496 \times 100 = 140$$

$$1.8 \text{ is } 1.8 \div 1.496 \times 100 = 120$$

$$1.3 \text{ is } 1.3 \div 1.496 \times 100 = 86$$

The index numbers are therefore 100, 133, 140, 120, and 86.

¹ Index numbers may be obtained for other economic factors such as volume of trade, number of employees, and wages.



FIGURE 66. GRAPH OF THE INDEX NUMBERS
EXPLAINED ABOVE

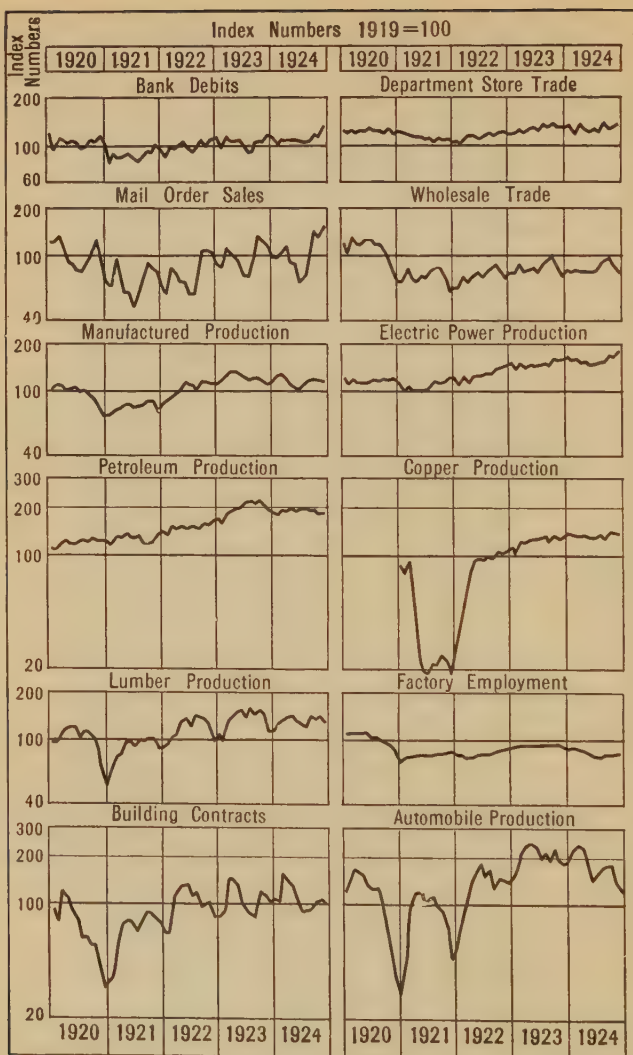


FIGURE 67. INDEX NUMBERS USED AS BUSINESS INDICATORS¹

¹Commerce Year Book, 1924.

DEMAND

Elasticity of demand. — Elasticity means sensitiveness to pressure with power to rebound when the pressure is removed. If pressure be exerted on a rubber band, it will stretch; if the pressure be removed, it will contract. Similarly, if the pressure of price on demand be increased by an increase of price, demand will decrease; if the pressure be reduced by a decrease of price, demand will increase. This sensitiveness of demand to price changes is known as *elasticity of demand*. Our largest manufacturer of automobiles understands this economic principle; every time he reduces the price of his machine he adds thousands of new purchasers.

This sensitiveness to price changes is not the same for all articles. The demand for some articles is much more sensitive to price changes than is that for others. In general, we can say that the demand for luxuries is more sensitive to price changes than the demand for necessities. An increase or decrease of twenty per cent in the price of diamonds will have a much greater effect on demand than will an increase or decrease of twenty per cent in the price of bread. The demand curve in Figure 63, page 264, represents an elastic demand. A change in price from .50 to .75 decreases the number of buyers from 4,000 to 3,000. On the other hand, an inelastic demand is one in which the quantity demanded is not sensitive to changes in price. A change of price either up or down will not greatly affect the quantity consumed.

The demand for such an article as bread can be illustrated by Figure 68, page 272.

If in a given community the price of bread is five cents, 4,000 loaves per day can be sold. If the price is doubled and made ten cents, it is unlikely that the number of loaves bought will be much less. People think that they must

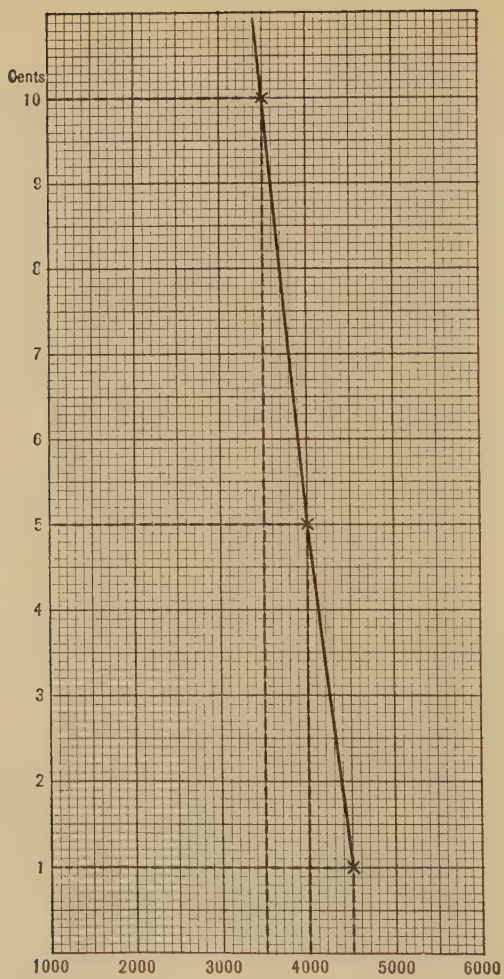


FIGURE 68. INELASTIC DEMAND CURVE

have their usual quantity of bread no matter what the price ; rather than go without it, they will go without other less essential commodities. As shown in the diagram, there will still be sold 3,500 loaves. Let the price fall to one cent and the number of loaves purchased daily will not greatly increase. Such a demand is inelastic.

The demand for luxuries is usually elastic. If the price of a luxury is increased, we are more likely to do without it than in the case of necessities ; and when luxuries are cheap, we increase our purchases of them. This is not always true ; there are some luxuries the demand for which is exceedingly inelastic. Many men will wear old clothes rather than give up their tobacco. Still, generally speaking, the demand for luxuries is elastic. The demand for articles which are very low in price is usually inelastic. Commodities like matches and salt, which cost only a few cents, represent such a small percentage of our total expenditures that we buy all we desire of them irrespective of price.

The law of demand. — Speaking from the standpoint of psychology, demand is desire plus the ability and willingness to pay. Speaking mathematically, demand is the amount that will be taken at a given price. On the other hand, supply is the amount that will be offered at a given price. These three, demand, supply, and price, are closely bound together. A change in one will work a change in the others. The most potent, in making changes in the other two, is price.

When price changes occur, both the amount offered, the supply, and the amount that will be taken, the demand, are vitally affected. For example, (1) if price rises, the amount that will be taken will fall ; if price drops, the amount that will be taken will rise. Conversely, if price rises, the amount that will be offered will rise ; if price falls, the amount that

will be offered will fall. (2) Another factor that affects demand is utility. If utility increases, demand will increase; if utility decreases, demand will decrease. (3) A third factor that affects demand is general purchasing power. Let us say, for illustration, that you have a million dollars and I have ten dollars. In that extreme case, it is obvious that to you a dollar will mean much less than to me, and that your purchasing power is much greater than mine. We can generalize the statement, and say that the greater the general purchasing power the greater will be the demand, can we not?

The preceding discussion enables us to formulate the law of demand as follows: *Demand varies inversely with price, that is, in the opposite direction; and directly, that is, in the same direction, (1) with utility and (2) with changes in general purchasing power.*

EXERCISES AND PROBLEMS

I

1. Define exchange.
2. What is value? Value in use? Value in exchange?
3. Why do you value a commodity or a service?
4. What is total utility? Marginal utility?
5. State the Law of Marginal Utility.
6. What is market price?
7. What is competition? What is the most outstanding characteristic of competitive price?
8. Define normal value.
9. After a careful re-reading of the section on normal value, close your book, and write out the theory of normal value.
10. How many exceptions to the theory of normal value are there? Name each.
11. Make up a set of buyers' maxima different from that in the book and construct the demand curve.

12. Make up a set of sellers' minima different from that in the book and construct a supply curve.
13. From your answers to 11 and 12, construct market-price curves.
14. Define elasticity of demand.
15. The demand for what articles is elastic? Inelastic?
16. Construct an inelastic demand curve different from that in the book.
17. State the law of demand.
18. What is an index number? How obtained?

II

1. If market price is determined at the point of equilibrium between supply and demand, how can retail merchants mark definite prices on their goods?
2. If the normal price of a certain grade of stockings is 35¢ a pair, how can an enterprising merchant advertise a special sale of three pairs for one dollar?
3. Give a concrete example to show that the following statements are equally true: "Value depends upon supply and demand." "Supply and demand depend upon value."
4. Why is the utility of the commodity to the merchant of little importance in determining the price he asks?
5. Suppose one firm controls all the gasoline produced in the United States, would the price that would be fixed for gasoline be an equilibrium price? Explain your answer.
6. Make a list of ten articles sold by your grocer. Which of these have an elastic demand?

III

1. Distinguish by definition or otherwise between value and price.
2. Explain whether a decrease in the price of salt would cause an increase in the quantity produced.

3. Explain fully whether there is any relation between the price of a sewing machine and the expense of producing it.

4. Assume that the price of wheat in New York is \$2.39 per bushel and that Australia offers wheat at \$1.16 per bushel. If the price of wheat were not fixed by the government, how would American wheat production be affected?

5. "*Normal value of freely produced goods* will stand at the point where *marginal utility* equals *marginal cost*." Explain this statement, making clear the meaning of each italicized term.

6. Define normal price. Show how market price tends to approach normal price, giving a specific price.

7. "Value is determined by marginal utility." "Value is determined by the equilibrium of demand and supply." Explain each statement. Show that these statements are not contradictory.

8. Some by-products are necessarily produced in the production of mutton, cotton, kerosene, butter, flour. How is the value of one of the above-named articles — for example, kerosene — determined?

9. Assume that it takes two years to build a steel mill. What effect will this have on the value of steel products in case of the sudden increase in the demand for them? Explain.

10. Explain the following: "Production at the greatest disadvantage determines normal value."

11. Show what effect the existence of large fixed capital in an industry may have on the variation of market price from normal price.

12. Values represent a consensus of opinion.

(a) Define the different kinds of value.

(b) What kind of value is referred to here?

(c) Is this statement true? Why or why not?

13. The supply must be adequate to clear the market. Explain.

14. The demand has been required to make the price and the price has been required to produce the supply. Explain.

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CHAPTER XIII

MONEY

FUNDAMENTAL PRINCIPLES OF MONEY

The evolution of exchange. — The methods of exchange have not always been such as are practiced to-day. Exchange has itself undergone development and improvement. Three distinct phases in this development are clearly apparent.

First, *barter economy*. — This is the earliest form of regular exchange; it was itself preceded by the primitive custom of exchanging gifts. Among primitive people to-day when a person presents a gift to another he awaits expectantly for a gift in return; amusing tales of such experiences are told by early settlers in this country of their relations with friendly Indians, who brought presents to the white man and then eagerly waited to see what they would receive in return; they were especially fond of the white man's firearms and his fire water. *Barter is the direct trading of goods for goods.*

Under this régime trading could not reach large proportions because of the drawbacks inherent in this method of exchange.

1. Under it, every exchange presupposed that A possessed what B wanted and wanted what B possessed, and in turn, that B possessed what A wanted, and wanted what A possessed. This has been called the *double coincidence of exchange*.

2. And, too, exchanges were often rendered impossible because *many goods are indivisible*. The owner of a cow would not be willing to exchange it for a meal; nor would he be willing to exchange a small part of his cow for a meal.

3. Again, many goods are *perishable* and for that reason they are not suitable for exchange. Many kinds of tropical fruits are unknown in the temperate zone because they spoil in shipment.

4. Finally, if articles are to be bartered for each other, the trader must know how much of this is worth a certain amount of that. One hundred different articles may be exchanged in any one of 4,950 combinations; *the trader must know every possible combination or he will be cheated*. These four serious drawbacks led men to invent money as a medium of exchange.

Second, *money economy*. — What is money? It is *any generally accepted commodity which serves as a medium of exchange and as a standard of value*. It includes all forms of metallic or paper money such as gold, silver, nickel, and copper coins as well as government notes and bank notes. It excludes checks, drafts, and other similar negotiable paper.

Third, *credit economy*. — Credit is *the power to command goods or service in the present in exchange for a promise to pay in the future*. The purpose in the use of credit is to save the use of money by postponing the time of payment. We shall study the different forms of credit in the next chapter. On pages 13 and 14 will be found a partial list of commodities that in the past have served as money.

Characteristics of good money. — Although many different commodities have served as money, not all have served the purpose equally well.

1. Value characteristics. (a) Experience has shown that a good money material must itself *possess value*, otherwise it cannot be used to measure the value of other commodities, (b) that it must possess *reasonably large value compared with bulk*, otherwise it cannot be carried easily on one's person, (c) and that it must possess *stability of value* because a varying standard works injustice to one of the two parties to every exchange.

2. The physical characteristics of a good money material are also important. (a) It must be *durable*, otherwise the trader receiving it will be cheated. (b) It must be readily *portable*, otherwise it cannot be used as money at all. (c) It must be *homogeneous* or of the same consistency throughout, otherwise it will be impossible to measure values by it. (d) It must be *divisible* so that it can be coined in different denominations. (e) It must be *cognizable* so that every one can easily recognize it on sight. (See pp. 13, 14.)

The functions of money. — What work does money do?

First, it serves as *a medium of exchange*. When not in school or during vacations, possibly you "get a job" and work; in return you receive pay in money; this money you can in turn exchange for goods or services which you desire.

Second, it serves as *a standard of value*. We can say in a breath that Mr. Jones is worth a million dollars. If it were not for the use of money as a standard of value, we should be obliged to enumerate everything possessed by Mr. Jones in order to impress our hearers with Mr. Jones' wealth.

Third, it serves as *a standard for deferred payments*. Suppose that your father owns a lot worth \$5,000. He wishes to build a home on it that will cost \$10,000, but he has not the money to do it. On his note secured by a mortgage, he can borrow the \$10,000 @ 6% interest, agreeing to pay the interest and \$1,000 per year on the principal. At the end

of the ten years, he will have repaid the loan. In form, he borrowed and repaid \$10,000; in reality, he borrowed a home and paid for it on ten installments. It is this function of money that enabled him to secure the home in which you live.

Fourth, ~~it serves as a basis of credit~~. A dollar in the reserve of a bank enables the bank to loan possibly ten times that amount.

Fifth, ~~it serves as a store of value~~. You hide money "in your stocking" or in some other supposedly safe place, planning to save it for a "rainy day."

Coinage. — *Coinage is the process of manufacturing bullion into coins.* It is done at the United States mint. The oldest mint is in Philadelphia and mints are located in Denver and San Francisco; formerly mints were located in New Orleans and in Carson City, Nevada.

It is possible to ascertain from a silver or gold coin where it was minted. Look at the "tails" of one of these coins; if under the eagle there is in small type a capital "D," the coin was minted in Denver, if there is a small capital "S," it was minted in San Francisco, if there is a small capital "O," it was minted in New Orleans, if there are two small capital "CC's," it was minted in Carson City, and if there is no small capital under the eagle, it was minted in Philadelphia.

A mint is a metal-working manufactory; it costs money to manufacture coins out of bullion, just as it does to manufacture shoes out of leather.

If the government makes a charge which just covers the expense of the operation, this charge is known as *brassage*; if a greater charge is made, it is known as *seignorage*; and if no charge is made by the government, it is known as *gratuitous coinage*.

If the government will accept for coinage unlimited amounts of bullion, it is called "*free coinage*." Free coinage means the same as unlimited coinage. In the United States there is gratuitous and free coinage of gold but limited coinage of silver.

For each ounce of gold brought to the mint any one can obtain \$20.67 in gold coin; the mint price of gold in this country, therefore, is \$20.67 per ounce.

Silver, nickel, and copper have no "mint price"; the government purchases what it needs of these metals at the current market price.

It is customary for national governments to assume a monopoly of coinage. Thus we get uniform, easily recognizable, stamped coins of guaranteed weight and fineness. The milled edge and stamped surface prevent "clipping" or "sweating" the pieces.

Standard money. — First, *monetary unit*. Each country has adopted by law a definite unit to serve as a medium of exchange in terms of which payments are made. This unit is a fixed weight of the metal adopted as standard, such as the dollar in the United States, the pound in Great Britain, etc.

The dollar is our monetary unit because it is used to measure quantities of money, and, in consequence, quantities of money value as possessed by other things. The term "dollar," therefore, is not merely the name of a coin, but also the name of a unit of measurement consisting of 25.8 grains of gold, nine tenths fine; that is, 23.22 grains of pure gold and 2.58 grains of alloy, chiefly copper. In practice no such coin is now minted.

The unit in the English system is the pound sterling. This consists of 123.27 grains of gold, eleven twelfths fine. The pure gold content is 113.0015 grains.

Second, *monetary standard*. The monetary standard is

“that thing the value of which fixes the value of the monetary unit,” in our case, 25.8 grains of gold, nine tenths fine. In order that the dollar and 25.8 grains of gold, nine tenths fine, may be interchangeable, it is provided that gold only shall enjoy unlimited coinage (*free coinage*), that there shall be no prohibition on melting coins (*free melting*), and that gold alone shall have *full and unlimited legal tender*. Thus we have standard money (gold coins) and subsidiary money (silver money, nickel, copper money, and various kinds of paper money).

Third, gold standard is world-wide.

TABLE 33

COUNTRIES	UNIT	GRAINS OF FINE GOLD
United States	Dollar	23.22
Canada	Dollar	23.22
Great Britain	Pound Sterling	113.00
France	Franc	4.48
Germany	Mark	5.53
Belgium	Franc	4.48
Holland	Guilder	9.33
Denmark	Krone	6.22
Norway	Krone	6.22
Sweden	Krone	6.22
Austria-Hungary	Krone	4.70
Italy	Lira	4.48
Switzerland	Franc	4.48
Japan	Yen	11.57
Russia	Ruble	11.94
Argentine	Peso	22.40
Uruguay	Peso	24.01

AMERICAN MONEY

Kinds of American money. — Money is either (1) *metallic money* or (2) *paper money*.

1. American *metallic money* consists of *gold coins*, in denominations of \$20, \$10, and \$5; the \$2.50 is no longer

coined. It also included *silver coins* in denominations of \$1.00, .50, .25, and .10. There is only one *nickel* coin, the "nickel" or .05. And one copper coin, the penny, .01.

Legal tender is the quality possessed by money which the law provides *must be accepted when offered in payment* of any obligation, expressed in terms of the country's monetary unit.

Gold coins are legal tender to an unlimited amount; silver dollars are legal tender to any amount, except when otherwise stipulated in the contract; gold certificates are full legal tender; silver certificates are not legal tender but they are receivable for all public dues.

Subsidiary silver coins are legal tender to the amount of \$10; the silver dollar contains 412.5 grains, nine tenths fine, that is, it contains 371.25 grains of pure silver; subsidiary silver coins contain 385.8 grains to the dollar, nine tenths fine.

Of the minor coins, the 5-cent piece contains 77.16 grains, 75% copper and 25% nickel; the 1-cent piece contains 48 grains, 95% copper and 5% tin and zinc. The minor coins are legal tender to the amount of 25 cents.

2. American *paper money* consists of (a) representative money, (b) government notes, and (c) bank notes.

a. The *representative money* is comprised of *gold certificates* and *silver certificates*; they are in the nature of warehouse receipts because they are backed by gold or silver, dollar for dollar, held in the United States Treasury for their redemption. In all parts of the country, except on the Pacific Coast, people prefer to carry the certificates rather than the coins. It will be noted that these bills read, "This certifies that there has been deposited in the Treasury of the United States of America — dollars in gold (or silver) payable to bearer on demand." The gold certificates are in denominations of \$10, \$20, and upward. The silver

certificates are in denominations of \$1, \$2, \$5, and upward.

b. Government notes of three kinds are in circulation at present.

First, *United States notes*, the so-called greenbacks. Notice that they read, "The United States will pay the bearer — dollars." Originally they were issued because of the exigencies of the Civil War by authority of the Act of Congress of March 3, 1863. They are in denominations of \$1, \$2, \$5, and \$10.

At first they were unsecured, but they are now protected by a gold reserve of \$153,620,486 ; this reserve may never go below \$100,000,000. The total amount in circulation is \$342,321,615, none of which may be retired. They are legal tender except for payment of duties on imports and payments by the government of interest on the public debt.

They have not always passed at par. Soon after their first issuance, greenbacks were at a discount. Merchants quoted two prices for their goods. For instance, $\frac{2}{3}$ meant that the greenback price was \$24 and the gold price \$15. Figure 69 presents a chart showing the annual average depreciation of greenbacks, 1863–1879.

Since January 1, 1879, when "specie payments" were resumed by the Treasury, greenbacks have passed at par. "Fiat money," that is, irredeemable paper money, has caused trouble for every nation that resorted to it. The French *assignats*, the German paper marks, the French paper francs, and the Russian paper rubles, as well as our own greenbacks, are examples.

Second, *Treasury notes of 1890*. These were issued to purchase silver under the Sherman Silver Purchase Act of 1890. They have all been replaced by silver certificates ex-

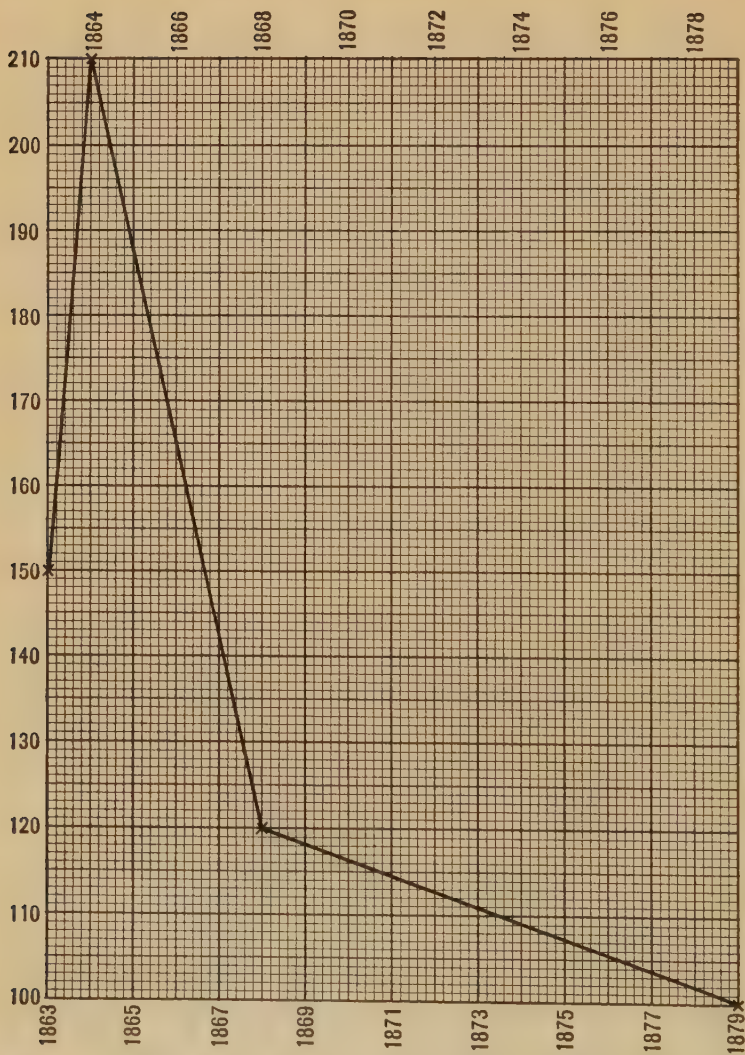


FIGURE 69. HOW MUCH ONE DOLLAR IN GOLD WOULD BUY IN GREENBACKS
1863-1879

cept \$1,379,005, most of which has probably been lost or destroyed, or has passed into the hands of collectors.

They read, "The United States of America will pay to bearer — dollars in coin." These notes are no longer of practical importance in our system of money.

Third, *Federal Reserve Notes*. The most important of our government notes. They read, "The United States of America will pay to the bearer on demand — dollars." They are the promissory notes of the United States government and are issued through a Federal Reserve Agent by the Federal Reserve Banks. They are redeemable in gold at the United States Treasury or in lawful money at any Federal Reserve Bank; they are not legal tender except in payment to a national bank or to the government. They are secured by commercial paper, gold coin, and other assets of the Federal Reserve Banks. These notes possess the two qualities necessary for a currency; they are both *safe* and *elastic*. They are issued in denominations of \$5 and up.

c. *Bank notes* of two varieties are in circulation.

First, *National Bank notes*. These are issued by individual national banks and they are secured by government bonds; they are not legal tender except in payment to a national bank or to the government; they are safe but inelastic. They read, "The — National Bank of — will pay to the bearer — dollars on demand." They are issued in denominations of \$5, \$10, \$20, \$50, and \$100.

Second, *Federal Reserve Bank notes*. They are the notes of individual Federal Reserve Banks; they are secured by the deposit of government bonds; they are issued in denominations of \$1, \$2, and \$5. They read, "The Federal Reserve Bank of — will pay to bearer on demand — dollars." Of course they are safe, but like the national bank

TABLE 34
CIRCULATION STATEMENT OF UNITED STATES MONEY — OCTOBER 1, 1925

KIND OF MONEY	STOCK OF MONEY	MONEY HELD IN THE TREASURY				
		Total	Amount held in trust against Gold and Silver Certificates (and Treasury Notes of 1890)	Reserve against United States Notes (and Treasury Notes of 1890)	Held for Federal Reserve Banks and Agents	All other money
Gold Coin and Bullion	\$4,398,782,845	\$3,710,023,137	\$1,670,227,809	\$153,620,986	\$1,695,325,235	\$190,849,107
Gold Certificates	(1,670,227,809)					
Standard Silver Dollars	523,671,078	454,777,936	448,092,893			6,685,043
Silver Certificates	(446,713,888)					
Treasury Notes of 1890	(1,379,005)					
Subsidiary Silver	284,529,390	6,882,872				6,882,872
United States Notes	346,681,016	4,359,401				4,359,401
Federal Reserve Notes	1,980,294,330	849,807				849,807
Federal Reserve Bank Notes	6,815,523	216,343				216,343
National Bank Notes	717,923,889	17,444,489				17,444,489
Total October 1, 1925	8,258,698,071	4,194,553,985	2,118,320,702	153,620,986	1,695,325,235	227,287,062
Comparative totals:						
September 1, 1925	\$8,206,529,326	\$4,191,235,944	\$2,122,827,965	\$153,620,986	\$1,706,297,835	\$208,487,158
October 1, 1924	8,693,198,249	4,294,764,264	1,750,336,947	152,979,026	2,179,026,535	212,421,756
November 1, 1920	8,326,338,267	2,406,801,772	696,854,226	152,979,026	1,206,341,990	350,626,530
April 1, 1917	5,312,109,272	2,942,998,527	2,684,800,085	152,979,026		105,219,416
July 1, 1914	3,738,288,871	1,843,452,323	1,507,178,879	150,000,000		186,273,444
January 1, 1879	1,007,084,483	212,420,402	21,602,640	100,000,000		90,817,762

TABLE 34 — *Continued*
CIRCULATION STATEMENT OF UNITED STATES MONEY — OCTOBER 1, 1925

KIND OF MONEY	MONEY OUTSIDE OF THE TREASURY			POPULATION OF CONTINENTAL UNITED STATES (ESTIMATED)	
	Total	Held by Federal Reserve Banks and Agents	In Circulation		
			Amount		Per Capita
Gold Coin and Bullion	\$688,759,708	\$274,786,613	\$413,973,095	\$3.62	
Gold Certificates	1,670,227,809	620,171,150	1,050,056,659	9.17	
Standard Silver Dollars	68,893,142	14,200,682	54,692,460	.48	
Silver Certificates	446,712,888	52,644,473	394,069,415	3.44	
Treasury Notes of 1890	1,379,005		1,379,005	.01	
Subsidiary Silver	277,646,518	9,878,467	267,768,051	2.34	
United States Notes	342,321,615	38,724,194	303,597,421	2.65	
Federal Reserve Notes	1,979,444,523	308,786,652	1,670,657,871	14.60	
Federal Reserve Bank Notes	6,599,180	139,178	6,460,002	.06	
National Bank Notes	700,479,400	36,128,055	664,351,345	5.80	
Total October 1, 1925	6,182,464,788	1,355,459,464	4,827,005,324	42.17	114,458,000
Comparative totals:					
September 1, 1925	\$6,138,123,347	\$1,354,098,802	\$4,784,024,545	\$41.84	114,340,000
October 1, 1924	6,148,770,932	1,342,404,392	4,806,366,540	42.52	113,040,000
November 1, 1920	6,616,390,721	987,962,980	5,628,427,732	52.36	107,491,000
April 1, 1917	5,053,910,830	953,320,126	4,100,590,704	39.54	103,716,000
July 1, 1914	3,402,015,427		3,402,015,427	34.35	99,027,000
January 1, 1879	816,266,721		816,266,721	16.92	48,231,000

Gold certificates are secured dollar for dollar by gold held in the Treasury for their redemption; silver certificates are secured dollar for dollar by standard silver dollars held in the Treasury for their redemption; United States notes are secured by a gold reserve of \$153,620,986 held in the Treasury. This reserve fund may also be used for the redemption of Treasury notes of 1890, which are also secured dollar for dollar by standard silver dollars held in the Treasury. Federal reserve notes are obligations of the United States and a first lien on all the assets of the issuing Federal reserve bank. Federal reserve notes are secured by the deposit with Federal reserve agents of a like amount of gold or of gold and such discounted or purchased paper as is eligible under the terms of the Federal Reserve Act. Federal reserve banks must maintain a gold reserve of at least 40 per cent, including the gold redemption fund which has been deposited with the Treasurer of the United States, against Federal reserve notes in actual circulation. Lawful money has been deposited with the Treasurer of the United States for their retirement. National bank notes are secured by United States bonds except where lawful money has been deposited with the Treasurer of the United States for their retirement. A 5 per cent fund is also maintained in lawful money with the Treasurer of the United States for the redemption of national bank notes secured by Government bonds.

notes they are inelastic. It is thought by some that in time both National Bank notes and Federal Reserve Bank notes will be replaced by Federal Reserve notes.

Of all these various kinds of money gold coins alone are standard money with full legal tender power; all others are subsidiary money.

TABLE 35

STOCK AND CIRCULATION OF MONEY, 1900-1925

[In millions of dollars]

JUNE 30—	STOCK				IN CIRCULATION				CIR- CULA- TION PER CAP- ITA (DOL- LARS)	GOLD	
	Total	Gold Coin and Bul- lion	Silver, includ- ing Sub- sid- iary	Paper Cur- rency	Total	Gold	Silver, includ- ing Sub- sid- iary	Paper Cur- rency		Im- ports	Ex- ports
1900 . . .	2,340	1,034	649	732	2,055	812	551	693	26.99	45	48
1905 . . .	2,883	1,358	683	852	2,588	1,136	630	822	30.73	54	93
1910 . . .	3,420	1,636	723	1,064	3,102	1,394	687	1,022	33.62	43	119
1913 . . .	3,720	1,871	743	1,108	3,364	1,612	696	1,056	34.86	64	92
1919 . . .	7,605	3,113	551	3,943	4,795	803	472	3,519	45.67	77	368
1920 . . .	7,910	2,709	528	4,674	5,332	691	424	4,218	50.10	417	322
1921 . . .	8,099	3,298	560	4,243	4,843	672	461	3,710	44.91	691	24
1922 . . .	8,177	3,785	652	3,742	4,374	589	553	3,232	40.04	275	37
1923 . . .	8,604	4,050	761	3,795	4,729	791	669	3,270	42.73	323	29
1924 . . .	8,747	4,491	781	3,476	4,755	1,197	671	2,886	42.43	320	62
1925 (Jan. 1)	8,715	4,547	795	3,373	4,993	1,429	712	2,852	44.27	—	—

MONEY CONTROVERSIES

The bi-metallic controversy. — First, *Falling prices are detrimental to debtors.* \$10,000 borrowed for ten years on January 1, 1865, could be expended when the index number is 183; repaid on January 1, 1875, when the index number is 118, it has a purchasing power of \$15,513. The debtor loses and the creditor gains. (See Figure 70, p. 291.)

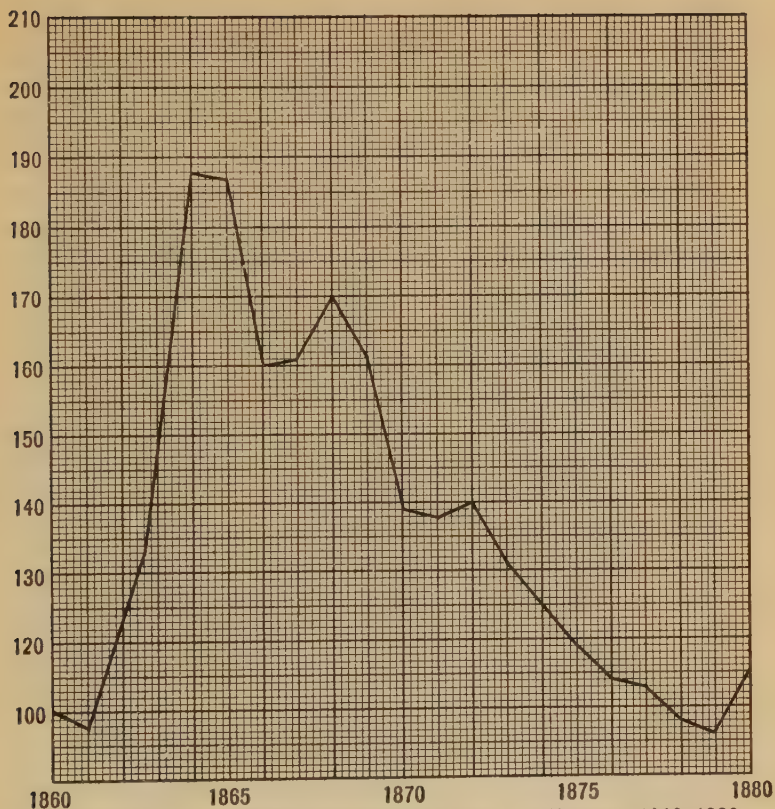


FIGURE 70. PROFESSOR MITCHELL'S CHART OF PRICES, 1860-1880

Second, *Rising prices are detrimental to creditors.* \$10,000 borrowed for ten years on January 1, 1910, could be expended when the index number is 100; repaid on January 1, 1920, when the index number is 225, it has a purchasing power of \$4,444. The creditor loses and the debtor gains. (Figure 71.)

Third, *No single commodity can perform perfectly the money function of a standard for deferred payments.* The reason for this is that as the price level rises or falls the value of the single standard does just the opposite.

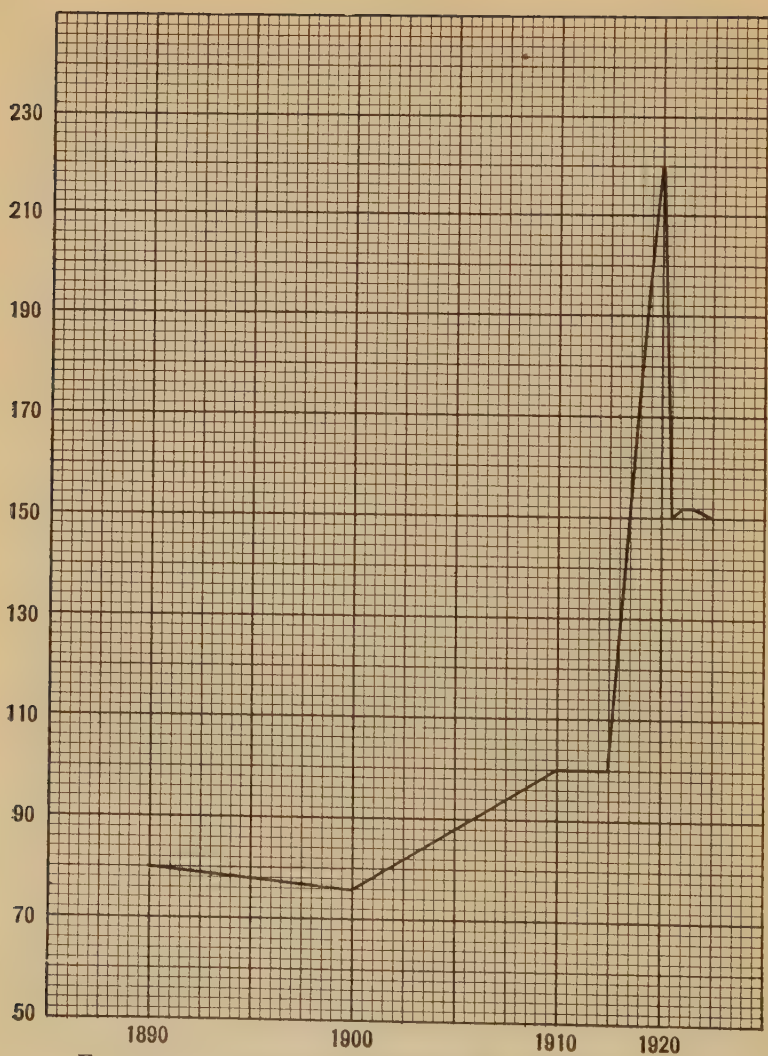


FIGURE 71. WHOLESALE PRICES IN THE UNITED STATES
1890-1924¹

¹ U. S. Bureau of Labor Statistics.

The free silver movement. — It was the injustice done to debtors by steadily falling prices, as shown by the graph on page 291, that was the basis of the free silver movement under the leadership of William Jennings Bryan. It was claimed that a double standard, with unlimited or free coin-

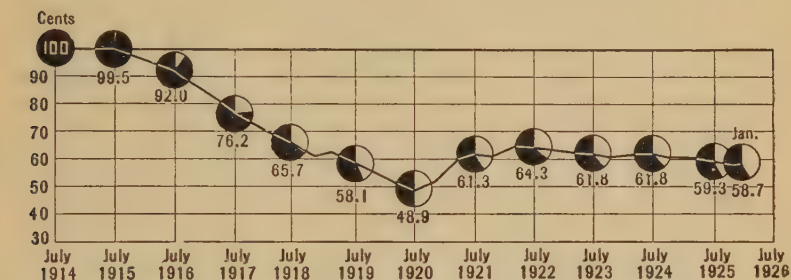


FIGURE 72. PURCHASING VALUE OF THE DOLLAR, BASED ON THE COST OF LIVING ¹

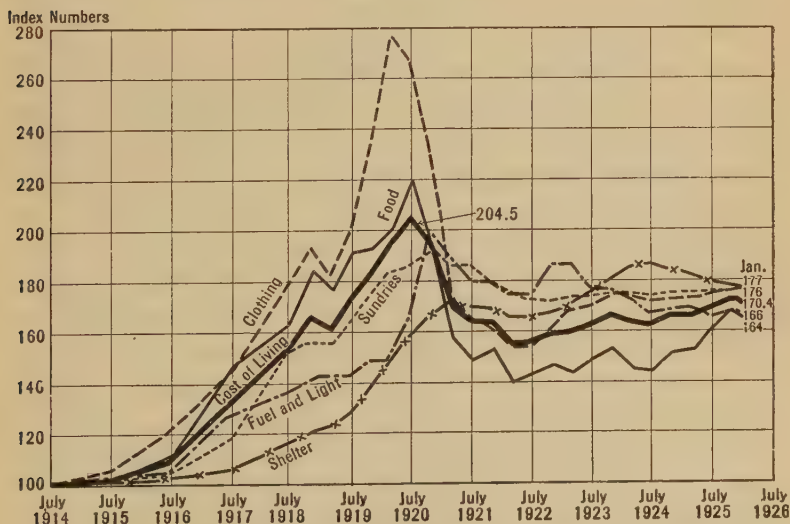


FIGURE 73. CHANGES IN MAJOR ITEMS OF COST OF LIVING ¹

¹ Courtesy of the National Industrial Conference Board.

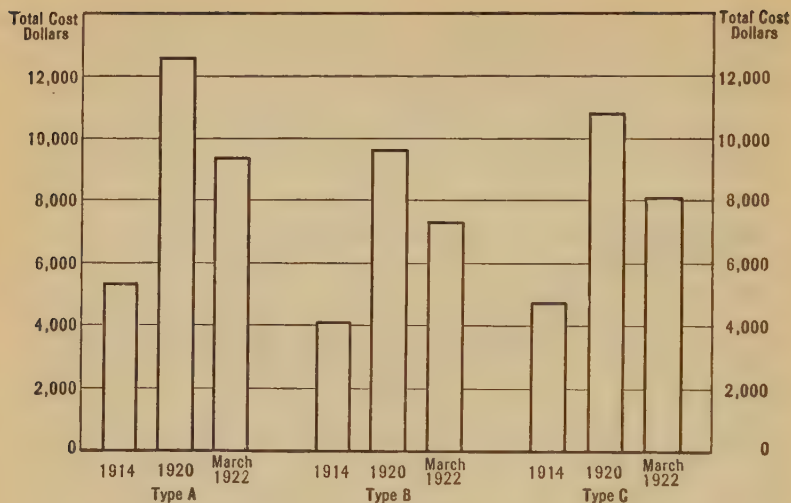


FIGURE 74. HOW THE CHANGING VALUE OF THE DOLLAR AFFECTS BUILDING A HOME

age of both gold and silver, would relieve debtors. This is fallacious. There cannot be two actual standards because of the operation of Gresham's Law. The change from falling to rising prices in 1900 (see graph on page 292) explains the elimination of "free silver" as a political question.

Proposal to stabilize the dollar.¹—Professor Fisher's "Multiple Standard" and "Compensated Dollar" would base the monetary standard upon the index number as determined from time to time by a government commission. The dollar would not be a certain weight of gold (now 25.8 grains, nine tenths fine) but a variable weight. Gold coin would not be in circulation; it would be held by the government. Instead, gold certificates would circulate and be redeemable by the government in gold. The amount of

¹ Possibly, stabilization of the general price level can be accomplished by the Federal Reserve Board (1) through control of the re-discount rate and (2) by "open-market operations." See Foster and Catchings, *Money*, Chapter XXI.

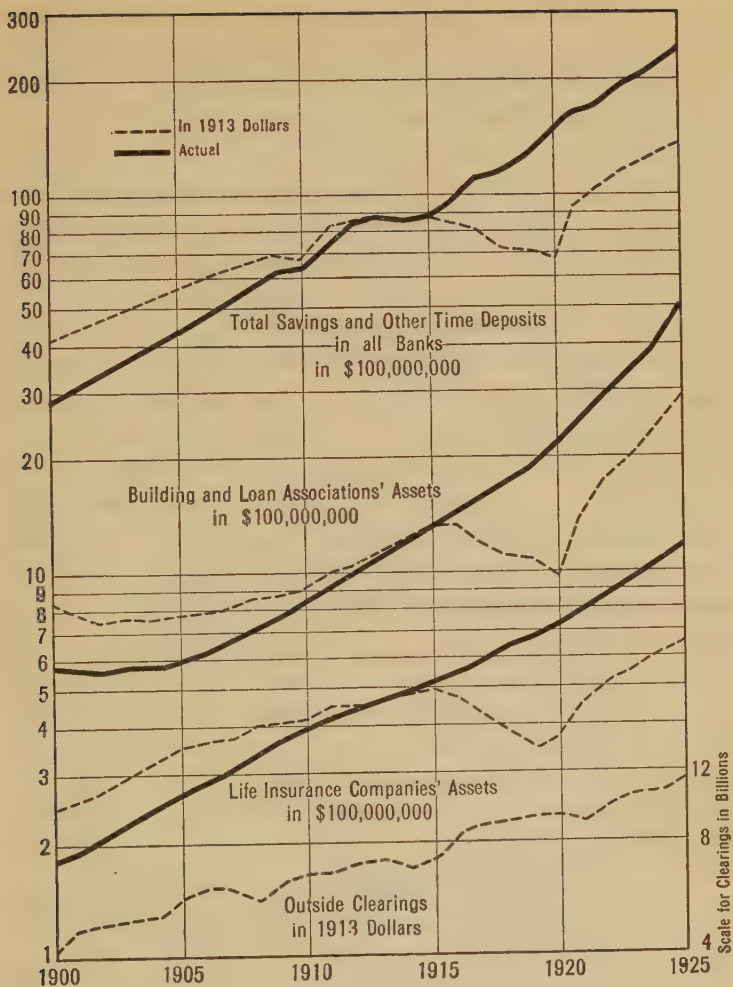
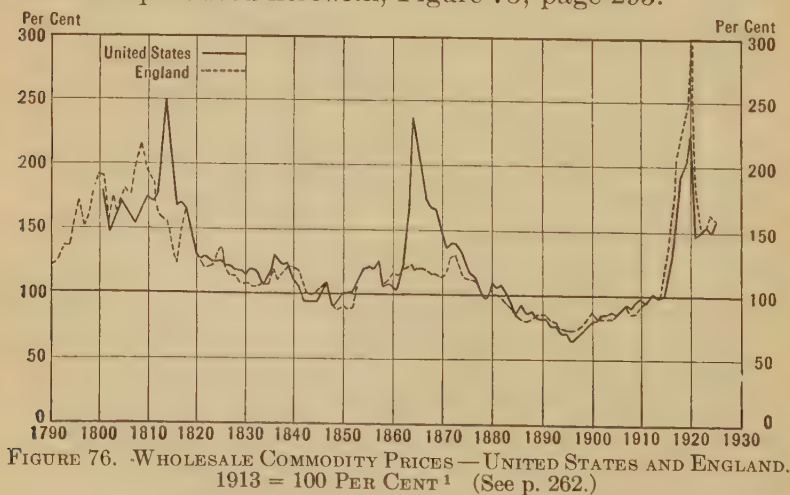


FIGURE 75. EFFECTS OF A DEPRECIATED DOLLAR

gold represented by a gold certificate for a dollar would be fixed in relation to the index number so that a gold dollar would always have the same purchasing power. This plan has many theoretical advantages but it is of doubtful practicability.

In order that we may translate the procession of shrinking dollars (Figure 72) into concrete terms, the preceding diagram shows how the changing value of the dollar affects the cost of building a house. The same house cost \$4,800 in 1914, \$12,300 in 1920, and \$8,700 in 1922. (See Figure 74, page 294.)

The Federal Reserve Bank of New York in its *Review*, January, 1926, presented a chart, showing the growth of savings deposits, building and loan assets and life insurance assets since 1900, in dollars and in values corrected to the 1913 price level. Along with these was given a line for the bank clearings of the United States outside of New York, in 1913 dollars. With acknowledgment of its source, this chart is reproduced herewith, Figure 75, page 295.



¹ National City Bank of New York Bulletin.

FOUR LAWS AND ONE THEORY OF MONEY

The laws of money. — There are four laws of money.

First, *The value of money.* The value of money *varies directly with the volume of business and inversely with the quantity and rapidity of circulation of money*; for example, if volume of business is large, there will be a great demand for money; that will increase its value. If the quantity is large or the rapidity of circulation great, the value will tend to fall.

Second, *The territorial distribution of money.* Money *tends to go where prices are low*; for example, that is a good place in which to buy and a poor place in which to sell; hence money will tend to go there and commodities will tend to leave.

Third, *The elasticity of money.* *The quantity of money in circulation varies directly with the demand for money*; for example, an increased demand for anything, money included, tends to increase its quantity.

Fourth, *Gresham's Law.* *Bad money drives out good money*; for example, jewelers, dentists, and bankers who ship money abroad will pick out the heavy coins; that will leave the light coins in circulation. A more scientific way in which to state this famous law is to say that *over-valued money tends to drive under-valued money out of circulation*; for example, "free silver" would drive out gold.

The chart on page 298 illustrates the operation of Gresham's Law.¹

In the upper diagram the continuous line shows the annual coinage of gold, in millions of francs; the dotted line shows the annual coinage of silver, in millions of francs. The

¹ Marshall, Wright, and Field, *Materials for the Study of Elementary Economics*, p. 463 (University of Chicago Press, 1913).

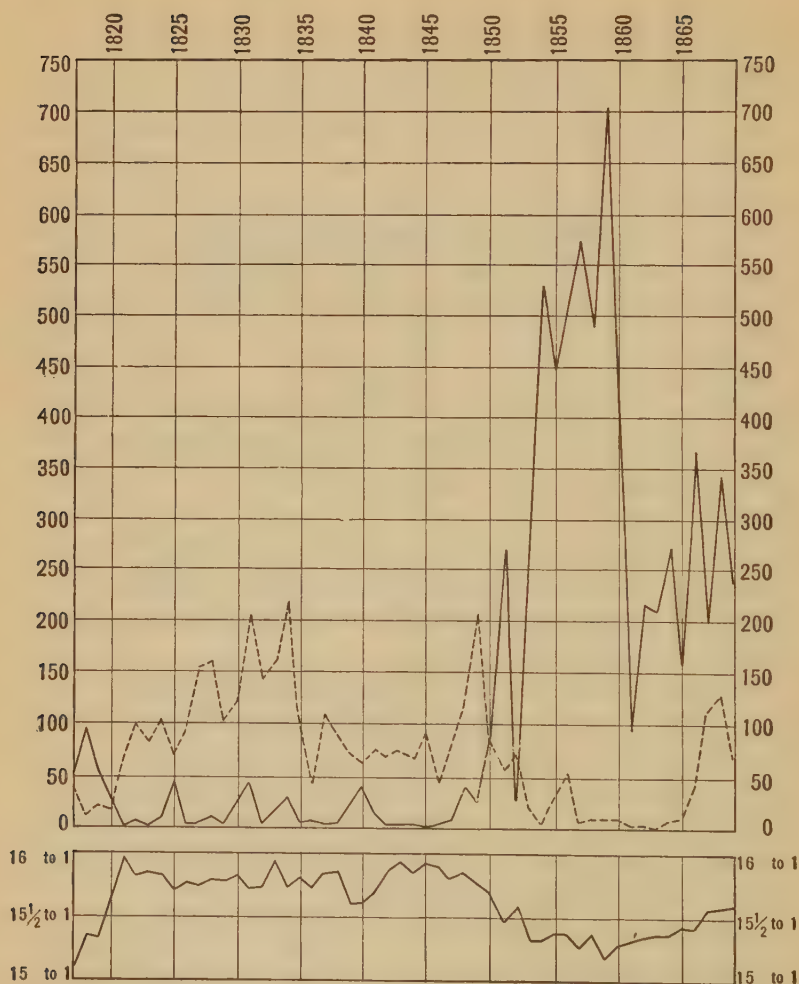


FIGURE 77. GRESHAM'S LAW AS ILLUSTRATED IN FRENCH HISTORY

curve in the lower diagram indicates the course of fluctuations in the market ratio of silver to gold. The mint ratio was maintained during the whole period at $15\frac{1}{2}$ to 1.

The quantity theory of money. — We are all familiar with the fact that prices change. If on the first of January a ton of pea coal costs \$11.50 and on the first of June it costs \$10.50, we, of course, know that it will take less money to buy coal in June than in January; the price of coal has gone down and the purchasing power of money, in terms of coal, has gone up.

Nor is the general level of prices stationary; it, too, rises and falls; changes in the general price level, we know, are indicated by index numbers. Suppose that on January 1 the index number is 100 and on June 1 it is 133. That means that the price level has gone up. If the price level goes up, it takes more money to buy a given quantity of goods; in other words, the purchasing power of money has diminished.

Price level and purchasing power of money vary inversely or in opposite directions.

This statement is true on two conditions:

First, *provided that the amount of money remains fixed.* If on the first of January there are 11,500,000 dollars in circulation in a certain community, it will be possible to purchase 1,000,000 tons of coal at \$11.50 per ton; but if there are 23,000,000 dollars in circulation and purchasers want 1,000,000 tons, they will bid against each other, thus forcing the price up, it may be, to double what it was, or \$23 per ton.

Second, *provided, also, that, in our illustration, while purchase of coal is in progress, each dollar changes hands but once.* A given piece of money can be used many times in making exchanges. Money in the tills of a merchant is active; it does much money work. A certain "Peace Dollar" of 1922 kept in my pocket as a pocket piece does scarcely any money work; it is a very lazy dollar. A certain \$5 Treasury

Note of 1890 kept in my wallet for exhibition to my pupils does not "earn its board and keep"; it never performs its function as a medium of exchange, while a given dollar in a bank's reserve does a great deal of money work because each dollar there enables the bank to lend many dollars.

On a certain day at the New York Clearing House a certain bank "cleared" \$18,000,000 and only twelve cents were needed to square accounts. That twelve cents did a big day's work. Not only, then, is the quantity of money important but also the rate of turnover. By "turnover," in this connection, we mean the number of times a dollar changes hands. If one given dollar makes one exchange to-day while another given dollar changes hands ten times, the latter does ten times as much work as the former.

Other things remaining the same, if much business is done, much money will be needed; if little business is done, little money will be needed. Therefore, we can say that *price level varies inversely with the purchasing power of money, provided the quantity of money remains fixed and the rapidity of circulating does not change.*

These statements can be expressed mathematically by what is known as *the equation of exchange*. It is obtained in this way.

1. Suppose your mother buys 10 pounds of sugar at 7 cents a pound. In this transaction 10 pounds of sugar is regarded as equal to 70 cents, or, $70 \text{ cents} = 10 \text{ pounds of sugar multiplied by } 7 \text{ cents}$. Every other sale and purchase may be similarly expressed, and by adding them all together we can get the equation of exchange for a certain period in a given community.

2. During this same period the same money usually serves for several transactions, so the money side of the equation is greater than the total amount of money in circu-

lation. This we call velocity of circulation or rapidity of turnover.

3. Beginning with the money side of the equation, let us suppose, with Professor Fisher,¹ that the number of dollars in a country is 5,000,000 and that the velocity of circulation is twenty times a year, then the total amount of money changing hands for goods per year is 5,000,000 times twenty, or \$100,000,000. This is the money side of the question.

4. If the money side is \$100,000,000, the goods side must be the same; if \$100,000,000 has been spent for goods during a year, then \$100,000,000 worth of goods must have been sold in that year.

5. To simplify our problem, we shall suppose that there are only three kinds of goods — bread, coal, and cloth, and that the sales are :

200,000,000 loaves of bread at \$.10 a loaf	=	\$20,000,000
10,000,000 tons of coal at 5.00 a ton	=	50,000,000
30,000,000 yards of cloth at 1.00 a yard	=	30,000,000
		<u>\$100,000,000</u>

6. Hence the equation of exchange is :

5,000,000 $\times$ 20 times a year

$$\begin{aligned}
 &= 200,000,000 \text{ loaves} \times \$.10 \text{ a loaf} \\
 &\quad + 10,000,000 \text{ tons} \times 5.00 \text{ a ton} \\
 &\quad + 30,000,000 \text{ yards} \times 1.00 \text{ a yard}
 \end{aligned}$$

7. The money side of the equation consists of (1) amount of money, which let us call M , and (2) velocity of circulation, which let us call V ; the goods side of the equation con-

¹ Irving Fisher, *The Purchasing Power of Money*, pp. 14-71. Macmillan.

sists of (1) quantities of goods (loaves, tons, yards), which let us call Q , and (2) prices of goods, which let us call p , then

$$M \times V = p \times Q$$

8. But we know that deposits in banks and other credit instruments also act as a medium of exchange, and we take account of them by adding them to the money side of the equation of exchange. If M' stands for the amount of "credit currency" and V' for the velocity of its circulation, then our equation of exchange will read

$$M \times V + M' \times V' = p \times Q$$

9. Finally, Professor Fisher states the equation in terms of the index number or scale of prices, which is P , and volume of trade, which is T , then the equation reads

$$M \times V + M' \times V' = P \times T$$

If the student finds that this mathematical form of statement serves to confuse rather than to enlighten him, he will, of course, disregard it.

We can formulate the Quantity Theory of Money into the following statement: *An increase or decrease of the quantity of money, the volume of trade being constant, must be accompanied by a proportionate general increase or decrease in prices.*

This is the quantity theory of money. If we include in the term "money," gold, paper money, and credit currency (bank checks, etc.), it is probable that a majority of American economists would accept it.

The quantity of money in circulation may be altered in several ways.

1. A very conspicuous example is the enormous issue of

paper money in Europe during and since the Great War; these issues had the effect of boosting prices to fabulous heights; the rise was greatest where the issue was largest, as in Russia and Germany.

2. Increase may be the result of increased production of gold, much of which finds its way into the mints.

3. It may be due to the importation of gold from other countries in payment for goods sold abroad or other debts of foreigners.

4. Decrease may occur through exportation of gold in payment of debts, or

5. By its withdrawal for use in the industrial arts.

Doubtless the high prices prevalent in this country from 1915 to 1920 were partially due to large importations of gold into the country in payment for munitions and supplies purchased here and also to the issue of many Federal Reserve Notes to finance loans to business men during the war.

The excessive issue of notes by governments is known as *inflation of the currency*. The Russian paper rubles, the German paper marks, the French paper francs as well as the notes issued by our Continental Congress and the "greenbacks" of Civil War time are examples of inflation of the currency.

EXERCISES AND PROBLEMS

I

1. What is barter economy?
2. What are four drawbacks to barter?
3. What is money?
4. What is credit?
5. Name three value characteristics of a good money material.
6. Name and explain five physical characteristics of a good money material.

7. Name ten historical forms of money. (See pp. 13, 14.)
8. Name and explain the five functions of money.
9. Define coinage. How can you tell where a gold or silver coin was minted?
10. Define brassage, seignorage, free coinage, gratuitous coinage.
11. What is "mint price"? To what metal does it apply?
12. What are the advantages of government monopoly of coinage?
13. Enumerate the American gold coins; the American silver coins; the American nickel and copper coins.
14. Name three kinds of American paper money.
15. Enumerate two kinds of representative money; give the denominations of each.
16. Enumerate three kinds of government notes; give the denominations of each.
17. What is meant by "the depreciation of greenbacks"? Was it detrimental to debtors or creditors? Why?
18. What is "fiat money"? What is the disadvantage of it?
19. In what particular are Federal Reserve notes superior to National Bank notes?
20. Name two kinds of bank notes; give the denominations of each.
21. Which of the paper money are temporary and which is it expected will be permanent?
22. What kind of money alone has full legal tender quality?
23. Of what two kinds of money is there the largest supply?
24. What is a "monetary unit"? Exactly what is our monetary unit? What is the monetary unit of the English system?
25. What three features are requisite to a monetary standard?
26. Name ten monetary units. Give the grains of fine gold in each.
27. What was the "bi-metallic controversy"? Which side was right? Why?
28. What is the most serious defect of any *single* monetary standard?

29. Describe Professor Fisher's "Compensated Dollar." Would it be an improvement? Why or why not?
30. Name and state the four laws of money.
31. State the quantity theory of money.

II

1. If the United States had adopted free coinage of silver in 1896, what would have been the effect on prices?
2. In what qualities is gold preferable to silver as a money metal?
3. What is the present market price of silver bullion?
4. What are token coins?
5. What is the meaning of legal tender? To what extent are different kinds of our money legal tender?
6. Your father borrowed \$10,000 in 1919; he repaid it in 1924. What effect did the lower prices of 1924 have on his debt?

III

1. Define money in (a) the legal sense, (b) the economic sense.
2. Would the following make good money: iron, wheat, diamonds, glass beads, sea shells, beaver skins? If not, why not? Which of the three functions of money would each be inadequate to perform?
3. Define money and show what characteristics a commodity must have in order that it may serve satisfactorily as money.
4. Why would not a bushel of wheat be a better measure of value than a gold dollar?
5. Mention three functions that money fulfills in the modern economy. Explain why "an inflation of the currency works an undeserved injury to the creditor class."
6. Define seignorage, brassage, standard money.
7. What is meant by the term "free silver"? To what extent does silver have the qualities of good money?
8. What are subsidiary coins? Are they legal tender? Define legal tender.

9. What is meant by the term "representative money"? Name two different kinds.

10. Give arguments defending the monometallic standard.

11. Give Gresham's Law and discuss its operation using the Greenback movement and the Free Silver movement as illustrations.

12. (a) What are the limitations on the full legal power of greenbacks? (b) What determines the value of the (1) silver certificate? (2) Greenbacks? (3) National Bank Note?

13. Give the arguments for or against the retirement as soon as possible of the United States greenbacks now in circulation.

14. What kind of money was in circulation in the United States from 1861 to 1878? State the economic law under which this money circulated.

15. Give two economic advantages and two economic disadvantages of paper money.

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CHAPTER XIV

CREDIT AND BANKING

EVOLUTION OF CREDIT

1st **Credit economy.** — Early methods of exchange are called barter economy because barter was the first form of regular exchange; but there were serious drawbacks to barter. As we have seen, barter necessitates the double coincidence of exchange as well as an extensive knowledge of the numerous possibilities of combinations in exchange; and, too, the indivisibility and perishability of some commodities preclude the possibility of many exchanges.

For these reasons, barter was largely superseded by *money* economy. That does not imply that barter absolutely disappeared; in fact, it has not yet wholly disappeared. Men still trade horses and boys still “swap” jack knives.

2nd The second stage in the development of exchange is called money economy because in it money became of predominating importance in effecting exchanges.

The third step in the evolution of exchange is called credit economy. There are two reasons why credit economy was added to and in part superseded money economy, (1) one lying in the money materials themselves and (2) the other in the changes in industry occasioned by the growing importance of the round-about method of production. You will recall that the round-about or capitalistic method of production necessarily involves elaborate preparation, production spread over a period of time, much capital goods, eventual plenty, and cheapness of consumable goods.

Why credit economy was introduced. — *First*, Money is exceedingly valuable in proportion to its bulk; this is expressed in the Latin phrase, *multum in parvo*; its portability is a temptation to unscrupulous, wicked men to seize it whether it belongs to them or not; that makes it dangerous to carry it on one's person and renders the transportation of money perilous.

Second, Modern methods of production, while much more prolific than the older methods, involve waiting; waiting postpones the time of payment; and in that postponement, we find the idea of credit.

Nor does the evolution of credit economy out of money economy imply that money is no longer used in exchange. It is still in constant use among civilized peoples; you doubtless have money in your pocket at this moment with which to meet your daily expenses, to pay for your lunch and car-fare, it may be. Money is used now by consumers chiefly for retail purchases and by producers chiefly to meet payrolls.

The present is called an era of credit economy because in it credit has risen to supreme importance as a part of the mechanism of exchange. By credit is meant the power to command goods and services in the present in exchange for a promise to pay in the future. "Money talks." "Money is power." These old sayings are true, if taken for what they are meant to express; but, to-day, it is equally true that *credit* "talks" and that *credit* "is power."

Credit is based upon mutual confidence. Under a régime of credit, two parties cannot do business with each other unless each trusts the other.

When two human beings have business dealings with each that involve the element of time, they are obliged to trust each other. The simplest relations of this nature illustrate

the fundamental fact. For instance, you hire out to work in a store, in a factory, or on a farm during vacation; your employer agrees to pay you ten dollars per week. You trust him to the extent that you believe he will keep his word and will pay you for your work. He trusts you in believing that you will perform the tasks he sets you to do.

Credit is based upon a *promise* to pay. This may be an implied promise to pay or it may be an expressed promise to pay.

Your mother has credit at the butcher's if he is willing to furnish her meat, sausage, and soupbones without immediate payment therefor but on the implied promise that when he presents his bill at the end of the month she will pay it promptly. The butcher "charges it."

Your father has credit at the bank if he can "borrow money" there in exchange for his expressed promise to pay in the form of a promissory note. The transaction between your father and the bank is doubly based upon confidence. The bank has confidence that at the end of perhaps ninety days your father will repay the loan. Your father has confidence that the bank will honor his checks up to the amount of the loan.

The whole purpose of credit is to save the use of money. No matter what its form, *credit always saves the use of money.*

When the butcher "charges it," your mother is not obliged to pay money immediately; the date of payment is postponed to some future time; no money passes when the contract is made.

When your father "borrows money" at his bank, he does not carry the money home or to his office, his store, or his factory. It would not be safe in these days of "hold-ups." What does he receive in exchange for the promissory note he gives the bank? He receives the privilege of drawing.

checks against his account up to the amount of the loan. In neither of these cases has money passed at any time during the transaction.

FORMS OF CREDIT

Credit does not always appear in a simple form. There are five forms of credit.

Book credit. — As this heading indicates, book credit involves keeping an account in a book of the charges made from time to time against a customer with the expectation that on presentation of a bill, at the end of the month, perhaps, final settlement of the account will be made.

Your mother, we have seen, has the privilege of a "charge account" at the butcher's. This is a convenience to her. Now she can say to you: "Run over to the butcher's shop and get me three pounds of beef steak; be sure it isn't tough." It will not be necessary for her to send the money because she knows that the butcher will "charge it." Possibly she gives you a little book in which the butcher makes an entry of the date, the quantity, the kind of meat, and the amount of the bill. As she makes purchases from time to time, the butcher makes appropriate entries on his books of account; at the end of the month or in the early days of the next month he sends her an itemized bill of all purchases made during the month. It may read something like the form shown at the top of the following page. This form of credit saves the use of money by postponing the time of payment to some future date; in this instance settlement must be made early in the following month.

The promissory note. — In many business transactions it is desirable that there should be written tangible evidence of the terms of the agreement entered into by the parties to the contract. The advantage of the written over the verbal

<i>Mrs. G. H. Nash.</i>				
In account with				
JAMES M. DOYLE, Butcher.				
1926				
<i>July</i>	<i>1</i>	<i>1 1/2 lb. beef steak</i>		<i>75</i>
	<i>2</i>	<i>2 lb. sausage</i>		<i>50</i>
	<i>3</i>	<i>cornphone</i>		<i>30</i>
	<i>31</i>	<i>3 lb. leg of lamb</i>		<i>100</i>
		<i>Total</i>		<i>2086</i>

contract is that it eliminates any later dispute as to the terms of the agreement. If the contract is verbal, there may be no method of settlement of a dispute as to the exact terms agreed upon by the parties; however, if the contract is written, either party can appeal to the documents in the case, namely, the written contract itself.

The promissory note is such a document. In it one party, the maker, promises in writing to pay to another party, the payee, or to his order, a definite sum of money on a certain future day.

Like all other forms of credit, the promissory note saves the use of money; it postpones the payment of money to the date of the maturity of the note.

A promissory note may save the use of money in another way. The party to whom the money is to be paid, the payee, has the privilege of selling the note to a third party, if he chooses. In case he finds a purchaser for it, he indorses the

note to its purchaser, called the indorsee. This will enable the original holder of the note to secure his money at once. In this manner, the note may pass by indorsement through many hands before it is presented to its maker for payment; and each time it passes from hand to hand it extinguishes debts.

Let us suppose that your father finds it desirable in the course of his business to borrow \$1,000 from his bank. He sees an opportunity in which he can make more than the amount of interest by borrowing; most business men are frequent borrowers at their banks. Your father applies at his bank for a loan; his "credit is good" and the bank lends him the money in exchange for his promissory note for ninety days. The note may look something like this:

Form 197 234 5-23

\$1000^{00 1/100} New York, N. Y. June 15 1926

Ninety days after date I promise to pay to

the order of The Bank of America

One thousand and 00/100 Dollars

at the office of THE BANK OF AMERICA, 166 Montague Street, Brooklyn, N. Y.

Value received.

No. 7,632 Due Sept. 13, 1926 George H. Nash

FIGURE 78. PROMISSORY NOTE

For legal reasons, the words "value received" should always be on a promissory note or other written promise to pay; then, the payee does not have to prove in court that the maker received the amount named. If the maker did not receive full value, he must prove it; the burden of proof is on the maker and not on the payee.

The check. — This is one of the greatest labor-saving devices of the age. By it much human exertion as well as

great expense are saved in the payment of debts. If a man in Bangor, Maine, owes a man in Waco, Texas, \$31.62, it would be a loss of time and energy and an expense for him to go to a bank, draw out exactly \$31.62, procure the proper wrappings, make a secure package, carry it to the express office, and pay for its transmission to its Texas destination. He can draw his check for that exact amount, payable to no one but his creditor, or his order, place the check in an envelope, and, at an expense of two cents, it will be carried to the address of the payee. There is no danger of loss or of burglary, and the debt is paid with the least possible expenditure of human energy and of money.

A check is a written order by a depositor on his bank to pay on demand a certain sum of money to a third party, the payee, or his order.

This paper may pass by indorsement through many hands before it reaches the bank, paying debts on each transfer. It saves the use of money each time it changes hands.

"Deposit currency" is the name sometimes given to checks and it is descriptive of this function performed by checks.

If your mother has a bank account at the Bank of America, she could pay the butcher's bill by sending the following check through the mail to Mr. Doyle. In this case no

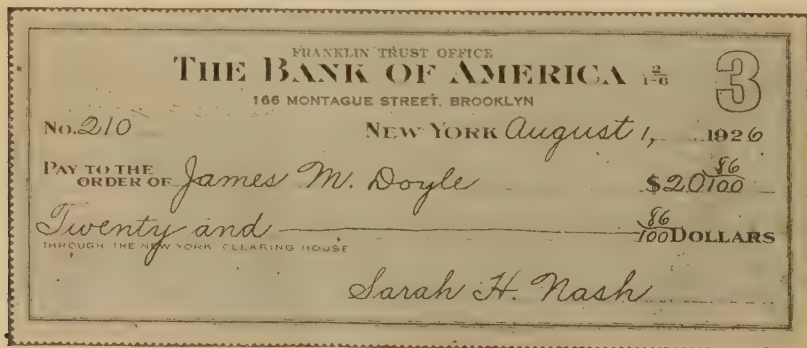


FIGURE 79. A CHECK

money would be used in the entire transaction. The charge account carried it for a month and it was settled by means of a check.

The draft or bill of exchange. — It frequently happens that a check is unacceptable when presented to a creditor, especially if he lives elsewhere than in your own community. Your bank may not be known in a distant state; and there is no quick method by which the recipient of your check can ascertain whether or not your check on your bank is "good." For these reasons, a more formal document than a check is often used to pay debts to creditors living at a distance. It is called a draft or bill of exchange.

There are two varieties of drafts or bills of exchange, (1) *domestic* and (2) *foreign*. We shall at this time discuss the domestic draft or bill of exchange, relegating treatment of the foreign draft or bill of exchange to our discussion of international trade.

In essence, there is no difference between them but there are certain superficial differences which lead to confusion in the minds of students, as you will learn when we come to study the subject of foreign exchange.

In a draft or bill of exchange, *a creditor orders his debtor to pay a certain sum of money to a third party on demand or at a certain future date.* If both creditor and debtor live in the same country, it is a domestic draft or bill of exchange. If creditor and debtor live in different countries, it is a foreign draft or bill of exchange.

This document is negotiable and can pass from hand to hand by indorsement. Each time that it changes hands it acts as a medium of exchange; it can thus be used to extinguish many debts.

Let us suppose that you live in Brooklyn, New York. It happens that your father, in the course of his business trans-

actions, is owed \$1,000 by M. R. Street of Chicago, and that he himself happens to owe, on another business transaction, \$1,000 to P. C. Howe, also of Chicago. He can draw a draft on the party who owes him, M. R. Street, for \$1,000 and send it to the party he owes, P. C. Howe. Mr. Howe can put it in his bank for collection; this bank will present it to Mr. Street and if Mr. Street "honors" it by paying it, two debts will be extinguished at one and the same time, the debt of your father to Mr. Howe and the debt of Mr. Street to your father.

You will please notice that once more no money passes in these transactions. Again, we reiterate that it is the function of credit to eliminate the use of money. This is another illustration of it.

If, however, as is more likely, your father owes no one in Chicago, but Mr. Street of Chicago owes him \$1,000, he can draw a draft of that amount on Mr. Street, making it payable to his own bank, in this instance to The Bank of America. He will deposit the draft in the Bank of America for collection; the Bank of America will forward it to its correspondent in Chicago. The Chicago bank will present it to Mr. Street for payment. On being notified by its Chicago correspondent that the draft has been paid, the Bank of America will credit your father's account \$1,000, less collection charges, and he will be at liberty to draw checks against the amount of the credit. The draft will look something like the form shown at the top of the opposite page.

Suppose that in the regular course of his business your father meets Mr. S. H. Walsh of New York; he does his best to sell him a bill of goods; Mr. Walsh seems to be pleased with the goods but he fails to close the deal. Your father cannot understand why Mr. Walsh does not "write his name on the dotted line." The goods are of the desired

NO PROTEST-TEAR THIS OFF BEFORE PRESENTING

\$1000⁰⁰/₁₀₀ H

Brooklyn, N. Y., June 15, 1926

Pay to the

Order of The Bank of America

One thousand and ⁰⁰/₁₀₀ Dollars

at order # 7,683

Value received and charge the same to account of

To Mr. R. Street } George H. Nash

No. 328 La Salle St., Chicago, Ill.

FIGURE 80. DOMESTIC DRAFT

quality, weight, and texture, but Mr. Walsh will not say Yes. Finally, it is divulged that the terms of payment are not satisfactory. Your father's terms are cash within ten days; Mr. Walsh wants ninety days. Neither will give way and the sale is about to fall through when it is suggested that the difference between them can be surmounted by a trade acceptance.

This is a special form of draft or bill of exchange which has become of increasing importance in this country since the Great War although it has been in general use in Europe for many years. The disagreement as to terms of payment is settled by Mr. Walsh's willingness to sign a trade acceptance.

Your father draws the document and sends it to Mr. Walsh for his signature; Mr. Walsh signs it and returns it to your father. Your father takes it to the Bank of America, which discounts it, placing the amount of the acceptance, less the discount, to your father's credit at once. Thus both your father and Mr. Walsh are accommodated.

Mr. Walsh immediately secures the goods he desires, but he is not obliged to pay for them for ninety days; your father secures the order and makes the sale of the goods, and

he also gets the pay for the goods immediately, not being obliged to wait even the ten days.

It is readily seen that the acceptance by postponing the time of payment saves the immediate use of money. The acceptance would look something like this :

TRADE ACCEPTANCE	No. 378	Brooklyn N.Y., June 1, 1926	(DATE)
	To S. H. Walsh	37 Maiden Lane, N.Y.C.	(NAME OF DRAWER)
	On August 30, 1926	Pay to the order of The Bank of America	(DATE OF MATURITY)
	One thousand and $\frac{00}{100}$	Dollars (\$1,000.00)	(NAME OF PAYEE)
	The obligation of the acceptor hereon arises out of the purchase of goods from the drawer. The drawer may accept this bill payable at any bank, banker or credit company in the United States which he may designate.		
Accepted at New York City on June 1, 1926	Payable at The Bank of America	By George H. Nash	(DATE)
	S. H. Walsh		(SIGNATURE OF DRAWER)
	U.S. Bank		(SIGNATURE OF ACCEPTOR)

FIGURE 81. ACCEPTANCE

Bank Notes and Government Notes. — These instruments of credit are already familiar to you. They are the National Bank Notes and the Federal Reserve Bank Notes, on the one hand, and, on the other, the United States Notes, or greenbacks, the Notes of 1890, and the Federal Reserve Notes. They have been fully described in Chapter XIII. They pass from hand to hand as money.

EXERCISES AND PROBLEMS

I

1. Define credit. What is the sole purpose of credit?
2. How many forms of credit are there? Name, define, and give an example of each.
3. Who is the *maker*, the *payee*, and the *indorsee* of a promissory note?
4. Who is the *maker*, the *payee*, and the *drawee* of a check?

TABLE 36

BANKERS' ACCEPTANCES OUTSTANDING ¹

[In thousands of dollars. The total outstanding Apr. 1, 1920, was \$799,100,000]

FEDERAL RESERVE DISTRICT	APRIL 1				FEDERAL RESERVE DISTRICT	APRIL 1				DEC. 31, 1924
	1921	1922	1923	1924		1921	1922	1923	1924	

¹ American Acceptance Council.

5. How many parties to a draft? What are they?
6. What is a trade acceptance? What are its advantages?

II

1. What proportion of the nation's business is done by check?
2. What is the relation between the density of population and the volume of credit? Between the intelligence of the people and the volume of credit?
3. A business man's credit is reported "good." Is his standing in business capital to him?
4. Is the real value of a country's resources affected by inflation of the currency? By contraction?
5. Does a general shortage of money affect the ability of a farmer to market his potatoes to advantage if he is willing to sell on a credit basis?
6. Does credit stimulate or retard truly productive enterprises? What is the effect upon speculative enterprises?
7. What is "deposit currency"? Show by concrete illustration how the deposits of a bank originate and increase. What insurance does the law give to depositors in our National Banks that their claims will be paid on demand?

III

1. Write a draft. Explain what is meant by (a) discounting it, (b) re-discounting it.
2. Show by illustration in the commercial world how credit saves time and labor.
3. Granted that the population and the business activities of a community remained the same for a given period, what effect on prices would follow an increased use of bank credits?
4. "There is a better feeling in banking circles as to the credit situation although money will remain tight." (a) Explain what is meant by (1) banking circles, (2) credit situation, (3) money will remain tight. (b) What influence does tight money tend to exert on prices?

CHAPTER XV

CREDIT AND BANKING

(Continued)

BANKS AND CREDIT

Functions of banks. — A bank “is a manufactory of credit and a machine of exchange.” Exactly how it manufactures credit we shall see when we study the subject of bank reserves. That it is a machine of exchange is evident in the general custom of paying debts through the medium of checks.

All banks perform two functions.

First, the function of deposit. By this is meant that all banks receive on deposit the funds of their customers.

While banks thus act as depositories for their clients' funds, still there is a difference between a bank and a safety deposit company. Doubtless your father does business with both kinds of institutions.

On the one hand, he places his funds in his bank; they are safer there than in his office or his store. The bank agrees to honor on demand his written orders to pay any sums up to the amount on deposit to the credit of his account.

In his safety deposit box, on the other hand, he places valuable papers, such as insurance policies, deeds, stock certificates, bonds, etc. He may also place there watches, jewelry, and other valuable objects which he fears might be stolen.

The bank does not agree to return to him the identical bills, checks, and coins he places on deposit; it agrees only to pay on his written order the *amount* of the deposits. The

safety deposit company does agree that the identical objects given to it for safe keeping shall be kept secure from the dangers of fire or burglary.

Second, the function of discount or loaning funds. Banking originated in Europe in the Middle Ages. In those times there were accumulations of gold and silver. Kings levied taxes and maintained treasuries for the safe keeping of their treasures; they borrowed large sums with which to carry on war, to go on a crusade, or to provide doweries for their daughters.

The first trading centers in Europe were Italian cities, and in the cities of Lombardy there grew up a class of money changers or money lenders. These money changers or money lenders were obliged to provide strong-boxes and safes in which to secure their stores of gold and silver coins. When their neighbors had surplus funds it was natural for them to keep their money with these money changers for safe keeping. These early bankers made an important discovery. They found that their neighbors left a large portion of the "deposits" in the hands of the money changers all of the time; in other words, they discovered that there was always a large balance of other people's money in their hands which the bankers might use as they pleased. These funds the banker loaned out for short periods of time. It was perfectly safe for him to do it so long as he kept on hand a balance or reserve sufficiently large to meet the daily demands made upon him for funds. This, it is claimed, was the origin of modern banking. Thus we can trace the beginnings of the two functions of all banks: the deposit function and the discount or loaning function. A bank receives its customers' deposits, but it does not keep them in its vaults; it loans them out, all except what it retains as a reserve.

Third, some banks also exercise the note issue function. This feature of banking also originated in Europe subsequent to the establishment of the practice of loaning out depositors' funds. Bankers found that they could also issue to borrowers their own written promises to pay (bank notes), agreeing to pay them on demand. They discovered that some of these notes were always in circulation, so they kept on hand only enough gold and silver to redeem the notes as they were presented for payment and to protect their depositors.

The next development was to allow business men to draw checks on the banks; these checks were secured by deposits and by credit created at the bank by the promissory notes of the business men. In this country, the privilege of note issue is confined to national banks which issue National Bank Notes and to the Federal Reserve Banks which issue Federal Reserve Bank Notes. These were both fully described in Chapter XIII. State banks must pay a ten per cent tax to the Federal government on the issue of notes. This makes it unprofitable to issue notes.

How banks save the use of money. — Like all instrumentalities of credit, *banks save the use of money.* They do it in two ways.

First, by making entries on the books of the bank when both parties to a check are depositors in the same bank. Let us revert to the case of your mother and her butcher, Mr. Doyle. At the end of the month, he presented his itemized bill of the charges he had made against her account during the month. She paid the bill by sending to him her check for \$20.86 drawn on the Bank of America.

Let us suppose that Mr. Doyle also has an account in the same bank. On the receipt of her check he places it on deposit in the bank. The Bank of America on its books credits his account as follows:

Account on books of a bank

JAMES M. DOYLE							
Aug.	1	Balance				3781	48
	3					20	86

FIGURE 82

And debits her account as follows :

Account on books of a bank

SARAH H. NASH							
Aug.	1	Balance				726	42
	3				20	86	

FIGURE 83

Second, by matching the claims of one bank against the claims of other banks at the Clearing House, when the parties to a check are depositors in different banks.

Let us suppose that A, B, C, D, and E are banks constituting a clearing house association. On a given day they present checks for clearing as follows :

Against	A	B	C	D	E	
By A	—	\$15,250	\$19,400	\$10,325	\$10,150	— 55,125
B	11,175	—	17,900	7,500	9,125	— 45,700
C	20,750	18,100	—	14,075	12,175	— 65,100
D	9,250	8,475	13,325	—	7,100	— 38,150
E	9,325	7,650	9,175	10,525	—	— 36,675
	50,500	49,475	59,800	42,425	38,550	— 240,750

	A	B	C	D	E
Debtor	50,500	49,475	59,800	42,425	38,550
Creditor	55,125	45,700	65,100	38,150	36,675
	+ 4,625	- 3,775	+ 5,300	- 4,275	- 1,875
Creditor Banks			Debtor Banks		
	A	4,625		B	3,775
	C	5,300		D	4,275
		9,925		E	1,875
					9,925

The ratio of cash used to total amount of clearings is found by dividing the former by the latter.

$$\text{Ratio} = \frac{240,750}{9,925.00} = .041^+$$

TABLE 37

DEBITS TO INDIVIDUAL ACCOUNTS: IN MILLIONS OF DOLLARS ¹

The totals for 1919 (the first year for which data are available) were:

District No. 2, \$244,243,474,000

All other districts, \$205,106,571,000

MONTH	FEDERAL RESERVE DISTRICT NO. 2 (NEW YORK, 7 CITIES)					ALL OTHER DISTRICTS (134 CITIES)				
	1920	1921	1922	1923	1924	1920	1921	1922	1923	1924
Entire year	249,375	213,911	247,067	246,493	271,862	226,765	184,788	192,290	217,222	219,829
January . .	24,321	20,667	19,645	22,763	22,815	20,407	17,251	15,292	18,990	18,683
February . .	18,606	15,646	17,029	19,596	20,512	16,676	14,064	13,556	16,329	16,886
March . . .	22,919	17,940	20,978	23,232	22,227	19,920	15,943	15,954	18,953	18,512
April . . .	21,991	16,951	21,326	21,181	21,357	19,073	15,264	15,062	18,113	18,162
May	20,255	17,775	22,269	21,400	22,125	18,446	14,718	15,707	18,672	17,920
June	20,496	18,356	22,694	21,790	22,640	19,288	15,230	16,543	18,784	17,590
July	19,791	16,908	20,329	19,008	22,185	19,515	14,584	15,727	17,496	17,946
August . . .	18,007	15,683	18,854	16,829	21,556	17,782	14,395	15,282	16,667	17,135
September .	18,237	16,618	19,793	17,415	21,388	18,630	14,987	15,975	16,645	17,584
October . .	20,817	18,171	22,967	19,846	23,242	19,397	16,130	17,778	19,054	20,176
November .	20,817	18,018	19,637	20,632	23,709	18,349	15,403	16,523	17,872	18,184
December .	23,118	21,179	21,546	22,801	28,106	19,282	16,819	18,891	19,647	21,051

¹ Federal Reserve Board.

The system of making settlement through banks is one of book entries, with eventual transfers in cash at the Clearing

House that do not ordinarily amount to five per cent of the total payments. Thus through the use of bank checks there is a saving in the use of money of over 95 per cent.

Economies of bank credit. — Bank credit, through the use of checks, drafts, bills of exchange, trade acceptances, letters of credit, etc., serves as a medium of exchange just as money does, but the use of credit instead of money enables the community to effect large economies.

1. For instance, bank credit saves most of the cost that otherwise would be involved in transporting the money. Our total foreign trade in 1924 is estimated by the Government to have amounted to the enormous aggregate of 11,593,000 thousands of dollars or $2\frac{1}{3}$ billions of pounds sterling. It is estimated that the expense of shipping a pound sterling across the ocean is two cents. All of these transactions could not have been settled by the use of money because there is said to be only about six billions of dollars worth of gold in the world. In fact, our total exports and imports of gold and silver amounted to 566 millions or 4.8% of the amount of business transacted; and there was saved by not transporting the gold to settle the transactions the tidy sum of 47 millions of dollars.

2. Again, bank credit saves the labor and expense that otherwise would have been devoted to obtaining more costly media of exchange. Mining gold, silver, or any other metal is an expensive process. Mining sections are full of abandoned mines; abandoned not because they have been exhausted of their metal but because it costs more than a dollar to procure a dollar's worth of metal.

Working a gold mine is a purely business enterprise, and unless it results in more than enough metal to pay the expenses of obtaining it a given mine will not be worked. Paper checks are cheaper than gold coins or silver coins.

TABLE 38

BANKING POWER OF THE UNITED STATES ¹

[In Millions of Dollars]

As of JUNE 30	AGGREGATE	FEDERAL RESERVE BANKS	TOTAL ALL OTHER BANKS	NATIONAL BANKS	REPORTING STATE BANKS, TRUST COMPANIES, AND PRIVATE BANKS	NONREPORTING PRIVATE BANKS (ESTIMATE)	WHOLESALE PRICE INDEX
1911-1915 (average)	23,360	378	23,285	8,819	13,888	578	98
1916-1920 (average)	39,930	3,516	36,414	14,325	21,618	471	136
1921-1924 (average)	52,031	4,972	47,059	17,786	29,164	110	150
1920	50,982	5,990	44,992	17,757	27,026	209	226
1921	48,220	5,210	43,010	16,492	26,418	100	147
1922	50,175	4,884	45,291	17,393	27,784	115	149
1923	53,283	5,018	48,265	18,085	30,072	108	154
1924	56,447	4,775	51,671	19,173	32,382	117	150

¹ Comptroller of the Currency, Treasury Department.

CLASSIFICATIONS OF BANKS

Kinds of banks. — From the standpoint of the source of authority and of public regulation, banks are divided into (1) *national banks* and (2) *state banks*. From the standpoint of the type of business transacted, banks are divided into (1) *commercial banks*, (2) *trust companies*, (3) *private banks*, (4) *savings banks*, and (5) *investment bankers*.

1. *Commercial banks* loan money for a short time to merchants and other business men, thus supplying capital for current business needs.

2. *Trust companies* are commercial banks authorized to transact other kinds of business not permitted other commercial banks; they may act as trustee of a corporation

mortgage, as administrator or executor of an estate, as transfer agent of the stock of a corporation.

Among the principal functions which the Trust Company performs are the following :

a. For Individuals. — Executor and trustee under will ; trustee under living trust, and insurance trust ; administrator of an estate ; guardian of the property of minors ; committee of the property of incompetents ; depository of property placed in escrow.

b. For Corporations. — Trustee under mortgages or indentures securing issues of bonds or notes ; fiscal agent for foreign governments and states ; transfer agent ; registrar of stocks or bonds ; fiscal agent for the payment of dividends, coupons, and principal of bonds and notes ; depository, as follows : under escrow agreements ; under voting trusteeships ; under reorganization or adjustment agreements ; of subscriptions to stocks or bonds.

3. *Private banks* are commercial banks conducted by a single entrepreneur or a partnership rather than by a corporation.

4. *Savings banks* appeal to small investors, gathering together small sums from many people, and loaning either through the purchase of long-time bonds of corporations for permanent improvements or through bonds and mortgages on local real property.

Savings banks are stock, mutual, or Postal Savings. The first are owned by stockholders and are operated for profit ; the second are owned by the depositors and profits are shared by themselves, except such as are necessary to pay running expenses. The stock savings banks are the more numerous, but the mutual savings banks have many times as large deposits as the stock savings banks. Savings banks have the privilege, seldom exercised, of requiring a

TABLE 39

SUMMARY OF POSTAL SAVINGS BUSINESS SINCE THE ESTABLISHMENT OF THE SYSTEM¹

[NOTE. — In addition to main offices there were 755 branches and stations in operation on June 30, 1923]

YEAR ENDED JUNE 30—	OFFICES IN OPERA- TION AT CLOSE OF PERIOD	DEPOSITS <i>Dollars</i>	WITHDRAWALS <i>Dollars</i>	BALANCE TO CREDIT OF DEPOSITORS AT CLOSE OF PERIOD <i>Dollars</i>	NUMBER OF DEPOSITORS AT CLOSE OF PERIOD	SAVINGS STAMPS			BALANCE ON DEPOSIT IN BANKS AT CLOSE OF PERIOD ² <i>Dollars</i>
						Sold <i>Dollars</i>	Redeemed <i>Dollars</i>	Outstand- ing at close of period <i>Dollars</i>	
1911	400	778,129	100,984	677,145	11,918	4,826	2,938	1,888	571,671
1912	9,907	30,732,357	11,172,418	20,237,084	243,801	166,479	134,346	34,021	18,586,042
1913	12,158	41,701,383	28,119,597	33,818,870	381,006	161,291	154,754	40,528	31,512,337
1914	9,639	47,815,249	38,189,848	43,444,271	388,511	150,390	141,904	49,014	40,919,673
1915	8,832	70,314,858	48,074,421	65,684,708	525,414	157,424	150,232	56,206	60,086,319
1916	7,701	76,775,868	56,440,691	86,019,885	602,937	181,173	188,833	68,546	80,775,586
1917	6,423	132,112,217	86,177,406	131,954,696	674,728	171,392	168,600	71,338	126,840,820
1918	5,926	116,893,259	100,376,456	148,471,499	612,188	117,864	130,133	55,068	140,638,608
1919	5,715	130,690,122	117,838,361	167,323,260	565,509	67,796	70,767	56,097	135,942,981
1920	5,583	139,208,954	149,255,892	157,276,322	508,508	72,066	69,043	59,120	126,426,019
1921	5,554	133,574,840	138,461,259	152,389,903	466,109	60,024	62,923	56,221	48,668,108
1922	6,020	96,507,746	111,161,210	137,736,439	420,242	73,672	68,188	61,704	44,160,417
1923	6,047	88,008,160	94,073,299	131,671,300	417,902	78,197	76,671	63,230	61,844,062
July	6,023	7,454,692	9,066,857	136,124,274	—	4,396	5,519	60,581	42,128,347
August	6,023	7,705,915	8,347,822	135,482,367	—	5,235	5,099	60,717	48,659,144
September	6,026	7,351,655	8,633,541	134,230,481	—	5,586	5,252	61,050	47,128,451
October	6,031	7,177,053	7,929,728	133,477,806	—	7,856	5,812	63,094	47,937,151
November	6,031	6,636,538	7,004,224	133,110,110	—	8,136	6,665	63,094	53,580,714
December	6,031	6,458,638	7,332,571	132,236,177	420,390	6,974	9,173	62,366	56,371,238
January	6,029	7,568,659	8,327,229	131,477,607	—	7,769	7,861	63,274	55,280,704
February	6,031	6,580,754	6,057,009	132,000,752	—	6,660	5,593	64,341	55,280,704
March	6,038	7,544,075	7,331,967	132,212,860	—	7,097	7,891	63,636	57,290,421
April	6,046	7,584,410	7,306,296	132,290,974	—	6,172	5,943	63,865	62,172,653
May	6,046	7,768,629	8,308,723	131,750,880	—	7,398	6,686	64,577	61,697,364
June	6,047	8,147,142	8,226,722	131,671,300	417,902	4,920	6,267	63,230	61,844,062

¹ Report of the Postmaster General on operation of the postal savings system.² Actually on deposit, while the corresponding balance-sheet item is net, reflecting the merging of ledger balances.

certain number of days' notice before withdrawal of deposits. The Federal government, through the Postal Savings Bank, offers great security but a small rate of interest. It is patronized largely by newcomers or foreigners who lack confidence in other banks.

5. Investment bankers do not often carry on a strictly banking business of deposit and discount. Still in floating large offerings of corporate securities, they play an important part in financial affairs.

Banks in the United States. — According to the Comptroller of the Currency, in 1923 the number of banks and the amounts of the deposits were as follows :

TABLE 40

	NUMBER OF BANKS	DEPOSITS
State banks	18,043	\$11,118,078,000
Stock savings banks	1,029	1,609,358,000
Mutual savings banks	618	6,288,551,000
Loan and trust companies	1,643	6,822,481,000
Private banks	604	131,399,000
National banks	8,241	13,964,091,000
Total	30,178	\$39,933,340,000

PRACTICAL WORKINGS OF BANKS

Deposits, loans, and reserves. — *First, deposits.* When you think of deposits, you naturally imagine, and rightly, that Mr. A, Mr. B, Mr. C, and so on down the alphabet, merchants in your town, at the end of each day, take out of their cash drawers the money that has come in during the day, and, not wishing to leave it in the store over night, for fear of the light-fingered gentry who do business between sun-set and sun-rise, place it in the bank for safe keeping. That is one source from which banks draw their deposits.

But there is another source. Practically ~~all~~ ^{business} men employ borrowed capital funds from time to time. Even father found it to his advantage to borrow \$1,000 at his bank for ninety days on June 15, 1926 (*ante*, page 313).

Let us see exactly what happens when a customer borrows money at his bank. One thing does *not* happen. He does not receive the money in cash. He dare not. The streets are full of able-bodied individuals whose nefarious business it is to relieve foolish persons of large amounts of cash which they inadvertently carry on their persons.

When a merchant borrows \$1,000 at his bank, in exchange for his promissory note for that sum he does not usually receive any money in return. The bank credits his account for the \$1,000, less the discount, and the merchant has the privilege of drawing his checks against it up to the amount of the credit. Thus, at one and the same time, the bank's loans and deposits are increased about \$1,000.

Second, lending money. A bank does business with two types of clients. One and the same client may at different times be included in one and then in the other group.

A bank both accepts deposits and lends money. All of the depositors of a bank do not wish to borrow money at the same time.

Every one of them makes deposits from time to time. It is these deposits which a bank loans to those of its clients who wish to borrow.

It is true that the bank agrees to repay on demand the amount of the deposits; however, experience has shown that, on the average, only a small part of the deposits will be demanded at any one time. This renders it safe for the bank to loan most of its deposits.

Nevertheless, the unexpected may happen; in case an unusually large number of depositors of a bank simultane-

ously demand payment of their deposits, there is what is called a *run on the bank*. Without preparation, no bank is in position to withstand a run. If given time, any sound bank can readily pay its obligations on demand, but no bank is prepared, on a moment's notice, to pay all of its obligations immediately.

Third, the reserve. From the point of view of a depositor, the most important item in the statement of his bank is the *cash reserve*. The cash kept by a bank in its vaults to protect its depositors, who have a right to their money on demand, is called the bank's reserve.

The condition noticed by medieval bankers still holds good at the present time. Banks have learned from experience that in normal times they can maintain a volume of loans several times as large as their reserve of cash. The ratio varies from time to time and from place to place.

Banking operations and statements. — It is highly desirable that you should understand a bank statement when you see one. For that reason we shall construct several bank statements beginning with the establishment of the bank and making the changes rendered necessary by the different transactions carried on at the bank.

1. To start the bank it is necessary for the stockholders to supply the capital funds with which to do business. Accordingly, \$100,000 is paid in by the stockholders and the first statement is as follows :

Statement, January 2, 1926

ASSETS (Bank owns)		LIABILITIES (Bank owes)	
Cash	\$100,000	Capital stock	\$100,000

2. A bank cannot do business without a home. The officers look around the town and finally decide upon a suit-

able building which they purchase for \$18,000; they also buy bank furniture for \$2,000. The new statement will read as follows:

Statement, January 9, 1926

ASSETS (Bank owns)		LIABILITIES (Bank owes)	
Real estate	\$ 18,000	Capital stock	\$100,000
Furniture	2,000		
Cash reserve	80,000		
	<u>\$100,000</u>		<u>\$100,000</u>

3. On the day the bank opens many of the business men of the town call, largely out of curiosity, but some of them come to do business. They make deposits of \$4,000 in cash. The statement will be as follows:

Statement, January 10, 1926

ASSETS (Bank owns)		LIABILITIES (Bank owes)	
Real estate	\$ 18,000	Capital stock	\$100,000
Furniture	2,000	Deposits	4,000
Cash reserve	84,000		
	<u>\$104,000</u>		<u>\$104,000</u>

4. The next day several checks are presented for payment, amounting in all to \$300. The statement that evening will read as follows:

Statement, January 11, 1926

ASSETS (Bank owns)		LIABILITIES (Bank owes)	
Real estate	\$ 18,000	Capital stock	\$100,000
Furniture	2,000	Deposits	3,700
Cash reserve	83,700		
	<u>\$103,700</u>		<u>\$103,700</u>

5. The bank, of course, is anxious to lend its funds; that is how it expects to make money. Several customers apply

for loans; the bank lends \$20,000 for three months @ 6%. It credits the customer's account \$19,700 (20,000 - 300). The \$300 of interest is debited to undivided profits or discount collected but unearned; \$20,000 is credited to loans and discounts and \$19,700 is debited to deposits. After these changes the statement will be as follows:

Statement, January 12, 1926

ASSETS (Bank owns)		LIABILITIES (Bank owes)	
Loans and discounts . . .	\$ 20,000	Capital stock	\$100,000
Real estate	18,000	Undivided profit	300
Furniture	2,000	Deposits	23,400
Cash reserve	83,700		
	<u>\$123,700</u>		<u>\$123,700</u>

6. A customer of the bank places on deposit a check for \$26.75 drawn by another depositor of the bank. The bank credits one account and debits the other account for that amount. There is no change in the bank statement.

7. During the next few weeks the business of the bank increases and various changes in its condition take place. Loans and discounts increase to \$370,000, discount on the loans amounts to \$3,875, of which \$3,000 is transferred to surplus, as fast as earned. The item "surplus" is considered as additional capital; although it is profit, the bank retains it and does not distribute it as dividends to its stockholders. The new statement will be as follows:

Statement, March 2, 1926

ASSETS (Bank owns)		LIABILITIES (Bank owes)	
Loans and discounts . . .	\$370,000	Capital stock	\$100,000
Real estate	18,000	Surplus	3,000
Furniture	2,000	Undivided profit	875
Cash reserve	83,700	Deposits	369,825
	<u>\$473,700</u>		<u>\$473,700</u>

8. Commercial banks loan their funds for short periods only, usually for ninety days or less. Loans, on their maturity, must be paid. Loans of \$25,000 are paid. Customers pay \$10,000 in cash and give their checks on the bank for \$15,000. Loans and discounts are reduced by \$25,000; cash reserve is increased by \$10,000 and deposits are reduced by \$15,000. The statement will be as follows:

Statement, March 3, 1926

ASSETS (Bank owns)		LIABILITIES (Bank owes)	
Loans and discounts . . .	\$345,000	Capital stock	\$100,000
Real estate	18,000	Surplus	3,000
Furniture	2,000	Undivided profits	875
Cash reserve	93,700	Deposits	354,825
	<u>\$458,700</u>		<u>\$458,700</u>

9. On finding that their funds are not all employed in loans to customers and in order to increase its income the bank buys securities. It pays \$25,000 in cash for stocks and bonds. Cash reserve is reduced by \$25,000 and a new account under assets is opened, viz. stocks and bonds. The statement will be as follows:

Statement, March 4, 1926

ASSETS (Bank owns)		LIABILITIES (Bank owes)	
Loans and discounts . . .	\$345,000	Capital stock	\$100,000
Stocks and bonds	25,000	Surplus	3,000
Real estate	18,000	Undivided profit	875
Furniture	2,000	Deposits	354,825
Cash reserve	68,700		
	<u>\$458,700</u>		<u>\$458,700</u>

10. The bank issues its own notes. A customer borrows \$15,000, taking it in bank notes. \$15,000 is credited to loans and discounts, \$150 discount is debited to discount credited but unearned, and the proceeds of the loan, \$14,850,

is charged to bank notes. The statement will be as follows:

Statement, March 5, 1926

ASSETS (Bank owns)		LIABILITIES (Bank owes)	
Loans and discounts . . .	\$360,000	Capital stock	\$100,000
Stocks and bonds	25,000	Surplus	3,000
Real estate	18,000	Undivided profits	1,025
Furniture	2,000	Bank notes	14,850
Cash reserve	68,700	Deposits	354,825
	<u>\$473,700</u>		<u>\$473,700</u>

11. The reserve ratio. The reserve ratio is the ratio of cash to demand obligations. The demand obligations consist of (1) the deposits, \$354,825, and (2) the bank notes, \$14,850; together they amount to \$369,675. To find the reserve ratio we divide the amount of the demand obligations into the amount of cash.

$$\begin{array}{r} 369,675 \overline{)68,700.00} \\ \underline{18^+} \end{array}$$

The reserve ratio is 18⁺ per cent.

12. Circulating privilege. If our typical bank is a national bank, it has the privilege of issuing its own notes which circulate as money.

On the establishment of the national banking system this was a privilege that amounted to something in additional earnings, as it made it possible for the issuing banks to earn double interest: (a) the interest on the government bonds that were the security for the bank notes and (b) the interest that came from lending the notes to the bank's customers. To-day neither item is of much monetary importance.

13. The usual form of a bank statement is illustrated by the following:

THE NATIONAL CITY BANK OF NEW YORK

CONDENSED STATEMENT OF CONDITION AS OF JUNE 30, 1926

ASSETS

CASH IN VAULT AND IN FEDERAL RESERVE BANK	\$108,869,978.68	
DUE FROM BANKS, BANKERS, AND UNITED STATES TREASURER	<u>166,720,795.29</u>	\$275,590,773.97
LOANS, DISCOUNTS, AND ACCEPTANCES OF OTHER BANKS		716,477,041.30
UNITED STATES GOVERNMENT BONDS AND CERTIFICATES	\$104,836,422.19	
STATE AND MUNICIPAL BONDS	21,182,122.76	
STOCK IN FEDERAL RESERVE BANK	3,180,000.00	
OTHER BONDS AND SECURITIES	<u>48,086,007.43</u>	177,284,552.38
SUBSIDIARIES:		
INTERNATIONAL BANKING CORPORATION	\$12,500,000.00	
BANK OF HAITI	<u>1,600,000.00</u>	14,100,000.00
BANK BUILDINGS		20,531,276.56
CUSTOMERS' LIABILITY ACCOUNT OF ACCEPTANCES		74,687,171.32
OTHER ASSETS		<u>2,823,637.56</u>
TOTAL		<u>\$1,281,494,453.09</u>

LIABILITIES

CAPITAL	\$50,000,000.00	
SURPLUS	50,000,000.00	
UNDIVIDED PROFITS	<u>13,133,488.64</u>	\$113,133,488.64
DEPOSITS		963,554,075.40
ITEMS IN TRANSIT WITH BRANCHES		15,047,116.79
LIABILITY AS ACCEPTOR, INDORSER, OR MAKER ON ACCEPTANCES AND FOREIGN BILLS		174,105,343.66
CIRCULATION		85,995.00
RESERVES FOR:		
ACCRUED INTEREST, DISCOUNT, AND OTHER UNEARNED INCOME	\$2,567,498.41	
TAXES AND ACCRUED EXPENSES, ET CETERA	4,565,854.57	
DIVIDEND PAYABLE JULY 1, 1926	2,000,000.00	
CONTINGENCIES	<u>5,969,782.53</u>	15,103,135.51
OTHER LIABILITIES		<u>465,298.09</u>
TOTAL		<u>\$1,281,494,453.09</u>

14. Below is presented an actual bank statement in such form as to be easily understood; study it until you under-

stand every item. If there are any items you cannot understand, consult some one connected with a bank.

THE CORN EXCHANGE BANK

WILLIAM AND BEAVER STREETS
and Branches located throughout Greater New York

ENTERPRISING enough to be PROGRESSIVE
CONSERVATIVE enough to be SAFE

A Bank Statement that any Man or Woman can Understand

October 1, 1925

The Bank Owes to Depositors	\$238,538,691.34
A conservative banker always has this indebtedness in mind, and he arranges his assets so as to be able to meet any request for payment.	
For this Purpose We Have :	
(1) Cash	\$39,516,844.98
(Gold, Bank Notes and Specie) and with legal depositories returnable on demand.	
(2) Checks on Other Banks	26,965,487.01
Payable in one day.	
(3) U. S. Government Securities	58,067,492.91
(4) Loans to Individuals and Corporations	29,126,064.62
Payable when we ask for them, secured by collateral of greater value than the loans.	
(5) Bonds	38,222,351.58
Of railroads and other corporations, of first quality and easily salable.	
(6) Loans	53,162,668.61
Payable in less than three months, on the average, largely secured by collateral.	
(7) Bonds and Mortgages	11,169,058.51
(8) Banking Houses	6,690,210.66
All located in New York City.	
(9) Other Real Estate	30,391.75
Total to Meet Indebtedness	\$262,950,570.63
(10) This leaves a Surplus of	\$ 24,411,879.29
Which becomes the property of the stockholders after the debts to the depositors are paid, and is a guarantee fund upon which we solicit new deposits and retain those which have been lodged with us for many years.	

EXERCISES AND PROBLEMS

I

1. What is a bank? What are the two functions of all banks? a third function of some banks?
2. In what two ways do banks save the use of money?
3. Name two economies of bank credit.
4. When a business man borrows money at his bank, what does he actually receive in return for his promissory note?
5. Whose money does a bank loan? Explain.
6. What is a bank's reserve?
7. Give the twofold classifications of banks.
8. How does a trust company differ from a commercial bank? a trust company from a private bank? a commercial bank from a savings bank? all of them from investment bankers?
9. What is a *stock* savings bank? a *mutual* savings bank?
10. About how many banks are there in the United States? Name the various classes in order of numbers and of deposits.
11. What is the reserve ratio? Why is it important?
12. Do you understand the bank statement on page 338? If so, take each item in the Statement of the National City Bank, and tell the class what it means.

II

1. If you found that the loans and discounts of a bank had decreased, what other item would you expect to show a decrease? Why?
2. Procure from a local banker the latest report of his bank; explain to the class every item in it.
3. Is there necessarily a close relation between the money value of the transactions of the clearing houses of the country and the volume of legitimate business of the country?
4. The circulation of the state banks was taxed 10% in 1861 by the Federal Government. The tax upon national banks was $\frac{1}{2}$ of one per cent. Justify the discriminating tax.

5. "The division of labor has, of course, made modern banking necessary." Explain.

6. "A savings bank accepts deposits." "During the panic of 1907, deposits in safety vaults greatly increased." "The deposits of the First National Bank exceed \$10,000,000." Of what should you expect the "deposits" to consist in each case?

CHAPTER XVI

CREDIT AND BANKING

(Concluded)

HISTORY OF OUR NATIONAL BANKS

The First Bank of the United States. — Through the efforts of Alexander Hamilton, Secretary of the Treasury in Washington's administration, a charter for twenty years was granted in 1791 to the Bank of the United States. It authorized this bank to regulate the currency, take public money on deposit, and to act as official agent of the government.

The capital stock was ten million dollars, one fifth of which was held by the government, the balance by the public, at home and abroad; the foreign holders, who were in the majority, were unable to exercise control, as they were not allowed to vote by proxy. The Secretary of the Treasury had the right of inspection.

Bank notes were receivable for public dues. The bank was allowed branches which were established in important cities, the main office being in Philadelphia. The renewal of the charter in 1811 was defeated and the bank liquidated, each \$400 share returning to its holder \$434. Its largest amount of deposits was eight and a half millions and the highest point of its note issue was four and a half millions. The American stockholders reorganized the bank, and the successor of the First Bank of the United States was chartered in 1812 as the Bank of America.

The Second Bank of the United States. — Following the refusal to renew the charter of the first United States Bank in 1811, many state banks were established. These new banks and the financial complications growing out of the War of 1812 produced wild financeering and bank-note inflation. To check these "wild-cat" banks and to provide for a return to specie payments, the Second Bank of the United States was established by Congress in 1816.

Its charter was for twenty years; the head office was in Philadelphia and there were nineteen branches. Its capital stock was \$35,000,000, one fifth of which was held by the government. Public moneys were deposited in the bank. At first it was not a success, indulging as it did in the wildest kind of banking; subsequently, it became a sound financial institution and the number of its branches was increased to twenty-five. Twenty directors were elected annually by the stockholders and five were appointed by the President. Nicholas Biddle was its president during most of its existence. President Jackson became hostile to the bank and precipitated a political war against it; this resulted in the refusal by Congress to renew its charter, and it expired in 1836. Previous to the removal of the government deposits by order of President Jackson, its assets amounted to eighty millions, and its bank-note circulation, to seventeen and a half millions. Government shares were liquidated at \$115.

Our national banking system. — During the interval between 1836 and 1863 there was "free" banking by state banks, practically without public regulation, and culminating in the panic of 1857.

Because of the exigencies of the Civil War, our present chain of national banks was established in 1863. The government was badly in need of funds. Its securities were

selling at a discount, the market for its bonds was restricted. Partly to furnish a market for government bonds a new banking system was established.

Any group of five people was empowered to apply to the National government for a charter for a national bank; one third of its capital stock must be invested in government bonds. To make these bonds attractive, the banks were allowed to deposit them for safe-keeping with the government and to issue against them national bank notes up to ninety per cent of their face value; later this was increased to one hundred per cent. Thus the banks enjoyed double interest, that on the bonds and that obtained by loaning the notes themselves.

At least three detailed reports of the condition of the banks are required each year; the national banks are under the supervision of the Comptroller of the Currency and subject to examination by government inspectors. Stockholders in national banks are subject to double liability; for example, if you own \$10,000 par value of such stock, you may be called on to pay \$10,000 more to liquidate the indebtedness of the bank.

Of the two requisites of a sound currency, safety and elasticity, the national bank notes possess the former but not the latter; no one ever lost money by accepting one of them, but they have been called "perversely" inelastic—expanding and contracting at the wrong time. (1) If a bank needed more notes, it could not procure them without (a) taking cash from its vaults to purchase more bonds against which to issue more notes, or (b) borrowing the bonds. But at such a time it did not dare to take cash from its vaults; that was exactly what the bank was trying to avoid, and other people were holding their government bonds rather than selling them.

(2) Another defect of the system was the inability of the banks to stand together at a time of crisis. Each bank sought frantically to gain for itself as much cash as possible; there was a grand scramble for cash; it was "each for himself, and the devil take the hindmost." In consequence of these main defects, our present Federal Reserve System was erected on the foundations of our National Banking System, in 1913.

TABLE 41¹

NATIONAL BANKS: NUMBER AND PRINCIPAL RESOURCES AND LIABILITIES
[Amounts in millions of dollars]

YEARLY AVERAGE OR YEAR	NUMBER OF BANKS	CAPITAL	SURPLUS AND UNDIVIDED PROFITS	TOTAL RESOURCES	LOANS AND DISCOUNTS	INDIVIDUAL DEPOSITS	NATIONAL BANK CIRCULATION	WHOLESALE PRICE INDEX
1911-1915 .	7,467	1,051	973	11,194	6,224	6,009	754	98
1916-1920 .	7,774	1,129	1,202	18,753	10,248	11,121	678	186
1921-1924 .	6,177	1,312	1,592	21,244	11,602	13,732	722	150
1913 . . .	7,488	1,056	985	10,877	6,187	5,761	725	100
1919 . . .	7,821	1,138	1,301	21,615	11,101	12,673	682	206
1920 . . .	8,093	1,248	1,456	21,885	12,433	13,596	693	226
1921 . . .	8,155	1,276	1,566	19,014	10,990	12,033	705	147
1922 . . .	8,240	1,307	1,581	20,926	11,248	13,440	727	149
1923 . . .	8,239	1,332	1,591	21,713	11,485	14,196	731	154
1924 . . .	8,074	1,333	1,631	23,323	12,222	15,256	724	150

¹ Comptroller of the Currency.

THE FEDERAL RESERVE SYSTEM

The twelve Federal Reserve Banks. — The basis of the Federal Reserve System rests in twelve central banks, located in Boston, New York, Philadelphia, Cleveland, Richmond, Atlanta, Chicago, St. Louis, Minneapolis, Kansas City, Dallas, and San Francisco. These are bankers' banks; they do no business with individuals, but solely with member banks.

All national banks are required, and state banks and trust companies are invited, to become members. On December 29, 1923, there were 8,179 national bank members and 1,595 state bank and trust company members, and a total membership of 9,774. Only about one tenth of all state banking institutions of the country were members; but at the time of writing, the members of the Federal Reserve System have over 70% of the total resources of all commercial banks of the country, and from the viewpoint of financial strength the position of the system is unassailable.

Membership is consummated by paying cash into the treasury of the local Federal Reserve Bank to the extent of six per cent of the member's capital and undivided surplus.

A Federal Reserve Bank is governed by a Board of nine directors, divided into three classes of three members each. Class A directors are appointed by member banks and are bankers. Class B directors are also appointed by member banks but cannot be bankers. Class C directors are appointed by the Federal Reserve Board and represent the public.

Thus, the member banks have a majority control over the management of their Federal Reserve Bank, but they are still subject to extensive regulation by the Federal Reserve Board.

Functions of the Federal Reserve Banks. — They are five in number.

First, to *lend credit* to member banks, chiefly in the form of *Federal Reserve Notes*.

Second, to serve as a *depository of the gold money reserves* of the nation.

Third, to act as a *clearing agency* of their members.

Fourth, to serve as *custodian of government funds*.

Fifth, to deal in (1) *bills of exchange*, (2) *in bullion*, and

(3) *in government obligations*; for example, all Liberty and Victory bonds were sold by the Federal Reserve Banks.

Re-discounting. — When a member bank has extended loans to the business community to such a point that it can lend no farther, and yet business men need more credit, it is still possible for it to give them the additional credit.

The bank holds as security for the loans it has made various promissory notes, drafts, bills of exchange, etc.; these are discounted commercial paper. The bank can take these to its Federal Reserve Bank and re-discount them, that is, sell them, receiving therefor Federal Reserve Notes, which enable it to make further loans to its clients. These Federal Reserve Notes are both safe and elastic.

When any of the commercial paper, re-discounted by the Federal Reserve Bank, has been paid by its makers, (1) the amount of notes issued against it must be at once retired from circulation or (2) one hundred per cent in gold, or (3) other lawful money, or (4) new commercial paper must be deposited to secure them. Thus the member banks control the amount of Federal Reserve Notes that are in circulation; this insures the elasticity of the currency.

The banking reserves. — According to law, member banks must maintain a reserve against their demand deposits of thirteen per cent in central reserve cities (the largest cities), ten per cent in reserve cities (medium-sized cities), and seven per cent elsewhere (small towns).

On time deposits, only three per cent is required. The banks keep these reserves as deposits with their Federal Reserve Bank. The Federal Reserve Banks are thus liable to be called upon by member banks for their reserves in time of need. To meet such emergencies, the Federal Reserve Banks are required to keep a reserve in gold or

lawful money of not less than thirty-five per cent of deposits and forty per cent against their notes.

In case of need, the surplus reserves of one Federal Reserve Bank can be transferred temporarily to the district where the need has arisen. In extreme cases the Federal Reserve Board may authorize a Federal Reserve Bank to make loans beyond the limits permitted by the reserve requirements.

The Gold Settlement Fund. — This has been called “the most efficient banking device in the world.” It consists of a fund of gold belonging to the twelve Federal Reserve Banks and it is held by the Federal Reserve Board in Washington. Formerly, when a bank in California owed gold to a bank in New England it was necessary for it to pack and ship the gold; in fact, shipping gold backwards and forwards throughout the country was common; the railroads provided cars specially designed for carrying gold. Now, when the Chicago Federal Reserve bank or any bank in the Chicago district desires to pay gold to a San Francisco bank, it is accomplished by a telegram and two bookkeeping entries. The Chicago Federal Reserve Bank telegraphs the Federal Reserve Board in Washington to transfer say \$25,000 of its gold in the Gold Settlement Fund to the credit of the San Francisco bank. The transaction is completed by notification to the Chicago bank that the transfer has been made.

The Gold Settlement Fund consists of about 500 million dollars.

Functions of the Federal Reserve Board.¹ — It performs six important functions.

First, it *appoints three of the nine directors* of each of the twelve Federal Reserve Banks.

¹ This board consists of the Secretary of the Treasury and the Comptroller of the Currency, *ex officio*, and six others appointed by the President for ten years.

Second, it *regulates the conditions under which the Federal Reserve notes may be issued.*

Third, it *fixes the rate of re-discount.*

Fourth, it has the power to *suspend the reserve requirement of a Federal Reserve Bank.*

Fifth, it may *order the transfer of reserves from one district to another.*

Sixth, it can *require the Reserve Bank in one district to re-discount paper from the bank in another district.*

The Federal Reserve Board thus acts as a centralizing and coördinating agency in our entire banking system.¹

TABLE 42

MEMBER BANKS OF FEDERAL RESERVE SYSTEM
NATIONAL AND OTHER THAN NATIONAL
NUMBER, CAPITAL AND SURPLUS, AND TOTAL RESOURCES²

NOTE. — All national banks, except those in Alaska and Hawaii, and about 12 per cent of the State banks and trust companies are now members of the system]

[All amounts in thousands of dollars; that is, 000 omitted]

	NUMBER OF BANKS			CAPITAL AND SURPLUS			TOTAL RESOURCES		
	All member banks	National banks	State banks and trust companies	All member banks	National banks	State banks and trust companies	All member banks	National banks	State banks and trust companies
Dec. 31, 1914	7,582	7,574	8	1,809,284	1,791,826	17,458	11,443,854	11,351,246	92,608
Dec. 31, 1915	7,631	7,600	31	1,828,679	1,792,509	36,170	13,740,825	13,461,185	279,640
Dec. 27, 1916	7,614	7,577	37	1,863,169	1,814,347	48,822	15,849,692	15,380,617	469,075
Dec. 31, 1917	7,907	7,657	250	2,396,260	1,875,495	520,765	23,649,962	18,539,576	5,110,386
Dec. 31, 1918	8,692	7,762	930	2,713,630	1,953,840	759,790	28,245,710	20,535,553	7,710,157
Dec. 31, 1919	9,066	7,885	1,181	2,969,560	2,078,359	891,201	33,916,044	23,676,048	10,239,996
Dec. 29, 1920	9,006	8,125	1,481	3,325,962	2,290,939	1,035,023	33,197,115	22,789,045	10,408,070
Dec. 31, 1921	9,779	8,165	1,614	3,425,296	2,314,633	1,110,663	30,114,136	19,935,224	10,178,912
Dec. 29, 1922	9,859	8,220	1,639	3,566,681	2,391,275	1,175,406	33,882,571	21,965,554	11,917,017
Dec. 29, 1923	9,774	8,179	1,595	3,644,373	2,392,784	1,251,589	35,238,606	22,395,303	12,843,303

¹ For additional powers, see Addenda, page 356.

² Annual Reports of the Federal Reserve Board.

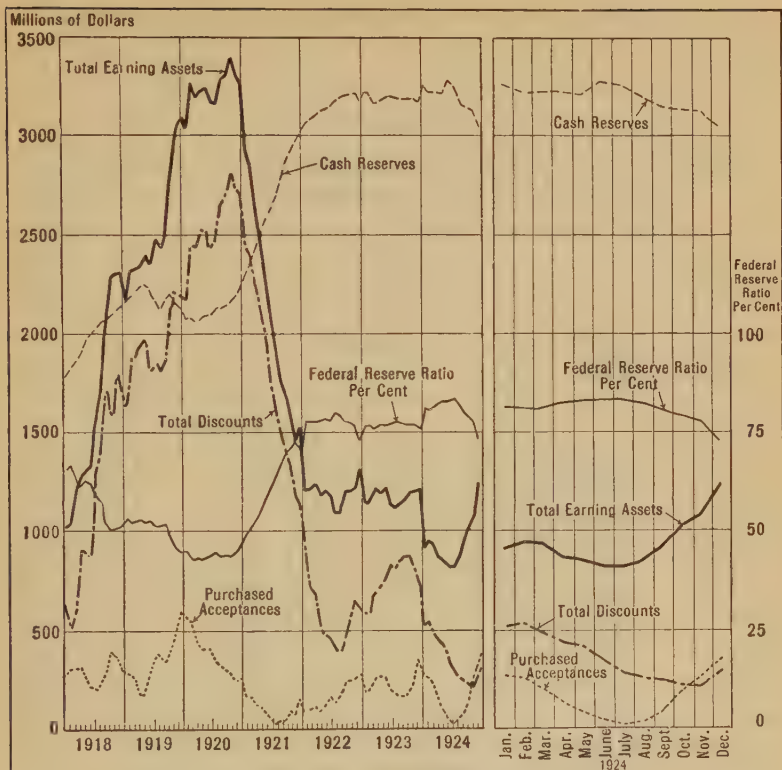


FIGURE 84. STATISTICS OF FEDERAL RESERVE BANKS
1918-1924

FARM CREDIT

Long-time credit. — Farmers need both long- and short-time loans which ordinary commercial banks cannot furnish because they must keep their assets liquid.

The Federal Farm Loan Act of 1916 provides for long-time credit. The Farm Loan Board was created which now consists of the Secretary of the Treasury and six members appointed by the President. The country is divided into

twelve districts in each of which a Farm Land Bank is located.

TABLE 43

FEDERAL LAND BANKS: BUSINESS TRANSACTED FROM ORGANIZATION,
AUGUST 7, 1916, TO OCTOBER 31, 1923¹

[NOTE. — Per cent figures indicate percentage that the loans for purpose referred to are of total loans of banks]

BANK	BOR- ROWERS (NUM- BER)	LAND MORT- GAGED (ACRES)	LOANS APPLIED FOR	LOANS GRANTED	APPRAISED VALUATIONS		
					Total	Land	Buildings
					Amounts in thousands of dollars		
Total . .	277,090	50,204,997	947,688	814,895	2,251,037	1,783,079	467,957
Springfield . .	9,593	1,208,240	35,135	29,707	94,512	54,532	39,980
Baltimore . .	15,743	2,166,681	48,809	41,122	121,488	84,423	37,064
Columbia . .	23,634	3,497,115	72,949	54,103	145,900	113,776	32,124
Louisville . .	23,097	2,564,649	84,994	76,536	200,284	163,227	37,056
New Orleans .	38,198	6,361,975	81,467	68,911	196,506	148,316	48,190
St. Louis . .	24,155	2,955,429	69,900	62,307	160,639	136,506	24,133
St. Paul . .	28,900	4,556,474	111,876	101,329	289,582	212,280	77,302
Omaha . .	18,406	5,155,453	105,515	93,763	259,263	223,659	35,605
Wichita . .	23,042	6,903,510	80,425	68,179	192,122	158,142	33,980
Houston . .	30,542	8,142,689	106,055	89,524	238,521	198,792	39,730
Berkeley . .	11,417	1,139,743	44,744	38,495	100,123	85,983	14,139
Spokane . .	30,363	5,553,039	105,819	90,919	252,096	203,443	48,653

¹ Statistical Abstract of the United States, 1923.

Farm Loan Associations are made up of ten or more owners of farms who wish to borrow money on the security of their land. Joint Stock Land Banks are private mortgage companies under government control; there must be at least ten incorporators and a minimum capital of \$250,000. On Dec. 31, 1923 these banks had "net mortgage loans" of 392 millions.

If a farmer wishes to secure a loan, he gives his note to the Farm Loan Association, secured by a mortgage on his land. The Association indorses the note, and sends it to the Farm

Land Bank, which advances the money to the Association. The Land Bank pledges these notes with the Farm Loan Board as security for an equal amount of $4\frac{1}{2}\%$ bonds sold to investors. The Land Bank charges the farmer $5\frac{1}{2}\%$ interest. The additional 1% is placed in a sinking fund which will pay off the bonds in forty-three years.

TABLE 44

NATIONAL FARM LOAN ASSOCIATIONS
LOANS MADE FROM ORGANIZATION TO DECEMBER 31, 1923, BY STATES ¹

[NOTE. — 240 charters were canceled to Dec. 31, 1923]

	NUMBER OF ASSOCIATIONS CHARTERED	NUMBER OF LOANS MADE	TOTAL AMOUNT LOANED (1,000 DOLLARS)	AVERAGE LOAN MADE (DOLLARS)
Total	4,831	292,643	876,490	2,995

¹ Statistical Abstract of the United States, 1923.

The Agricultural Credit Act of 1923 provides short-time credit. This creates a complicated mechanism of credit facilities designed to help the farmer. The most important features are the following: twelve Intermediate Credit Banks financed by the government are created each with capital stock of \$5,000,000. They lend to other banks to enable them to lend to the farmer; the Act creates branch Loan Banks empowered to make loans direct to borrowers at $1\frac{1}{2}\%$ in excess of that borne by the last preceding issue of farm loan bonds of the parent bank. The Farm Loan Board may sell notes based upon the bonds issued by Intermediate Farm Banks. They lend on personal security. They make loans for a period of nine months, secured by cattle, crops, or other farm resources.

TABLE 45

INTERMEDIATE CREDIT BANKS: CONSOLIDATED STATEMENT AS OF
DECEMBER 31, 1923 ¹

ASSETS		<i>Dollars</i>
Direct loans		33,627,492
Re-discounts		9,104,938
Accrued interest on loans and re-discounts		271,105
United States Government bonds and securities		7,285,156
Accrued interest on United States Government bonds and securities		80,740
Other Federal intermediate credit bank debentures		750,000
Accrued interest on other Federal intermediate credit bank debentures		12,188
Other accrued interest		7,617
Re-discounts for other Federal intermediate credit banks		5,305,000
Cash on hand and in banks		2,789,116
Capital stock subscriptions callable from United States Treasury		40,000,000
Other assets		55,133
Total assets		<u>99,288,485</u>
LIABILITIES		
Capital stock subscribed		60,000,000
Federal intermediate credit bank debentures outstanding		30,500,000
Accrued interest on debentures outstanding		387,603
Notes and bills payable		800,000
Notes and bills re-discounted		6,800,000
Other accrued interest		38,306
Interest, etc., collected not earned		289,944
Other liabilities		226,576
Surplus and undivided profits		246,056
Total liabilities		<u>99,288,485</u>

¹ The Seventh Annual Report of the Federal Farm Loan Board.

REGULATION OF STATE BANKS

Lack of uniformity. — Each state of the Union is a law unto itself. In some states, there is as complete and intelligent public supervision over the various state banks as that exercised by the Federal government over the Federal

Reserve System. New York and Massachusetts are notable examples of superior state regulation of banking.

EXERCISES AND PROBLEMS

I

1. What were "wild cat" banks?
2. "Nicholas Biddle and his nose." Did you ever hear of either one? If so, what?
3. What is "free banking"? Is it a success?
4. What governmental reasons led to the establishment of our National banking system?
5. Give the salient features of our National banking system.
6. What weaknesses developed in it?
7. When was the Federal Reserve System established? What proportion of the banks of the country are in it? What proportion of the banking resources of the country are in it?
8. How does a bank join the Federal Reserve System?
9. How is a Federal Reserve Bank governed? How are the directors selected?
10. What are the five functions of a Federal Reserve Bank? Which are the two most important? Why?
11. What is meant by re-discounting?
12. Exactly how are Federal Reserve Notes rendered "elastic"?
13. What are the different "reserve ratios"? What is the reserve ratio in the district where you live?
14. What is the "gold settlement fund"? What are its advantages?
15. Enumerate the six functions of the Federal Reserve Board. Which are the two most important? Why?
16. Why do farmers require especial banking facilities?
17. Give the main features of the Federal Farm Loan Act of 1916.
18. Give the main features of the Agricultural Credit Act of 1923.
19. How are state banks regulated in your state?

II

1. What is the Federal Reserve city of your district? What are the limits of your district?

2. What similarities of purpose, organization, and administration do you find between the Federal Reserve system and the Federal Farm Loan system?

3. Is the general benefit of the Federal Reserve banks to the business man of the country as great as the benefit to the banks?

4. Explain those features of the Federal Reserve system that tend to prevent the recurrence of a business panic.

5. The working men in 1835 favored hard money and opposed bank inflation. Why?

6. "In times of panic, the only sound policy for banks — is to lend freely." Why? Why has this policy been difficult to pursue previous to 1914? Why is it easier now?

7. How do you account for the fact that many national banks have been changed to trust companies?

8. The following are the items in the statement of an American bank.

Bank building and fixtures	\$ 293,234.42
Stock and bonds	645,478.90
Deposits	6,472,926.43
Circulation of its own notes	800,000.00
United States bonds and premiums	851,020.00
Surplus	600,000.00
Loans and discounts	5,534,983.27
Capital stock	800,000.00
Due from banks	988,006.41
Cash	586,918.00
Undivided profits	226,714.57

Make a statement showing the resources and liabilities of the bank. What is the reserve ratio?

III

1. What is an "elastic currency"? Show the advantages of such a currency.

2. What are some of the causes of bank failures? What measures have been adopted to prevent such failures?

3. Give the purposes of the Federal Reserve system, and state its method of operation.

4. Explain the organization of the Federal Reserve system. Explain how it was designed to guard against the weaknesses of the national banking system.

5. "The Federal Reserve system" has (a) concentrated the banking reserves of the country, (b) brought about the elasticity of the currency, (c) provided a sure way of re-discounting commercial paper." Briefly explain these three functions.

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ADDENDA

The Re-discount rate. — The rate at which a Federal Reserve Bank will re-discount for its member banks legally acceptable commercial paper is fixed by its own board of directors subject to supervision by the Federal Reserve Board. The far-reaching influence of the exercise of this power it would be hard to overstate. It largely controls the rate of interest charged by the member banks, and that, in turn, is one of the primary factors in determining the general level of prices. (See pp. 475–480.)

Open Market Operations. — Another method by which the Federal Reserve Banks influence general trend of the price level is by the purchase and sale in the open market of securities, chiefly the securities of the Federal government. When they *buy*, that puts more money into circulation; this makes money more abundant and, hence, less valuable; that tends to raise the price level. When they *sell* securities, the opposite effect is caused.

CHAPTER XVII

INTERNATIONAL TRADE

INTRODUCTION

The nature of trade. — It may seem strange when you hear it said, but, whether it occurs between citizens of the same country or between citizens of one country and citizens of another country, it is literally true that *trade is trade*. If you can really grasp this one fact, the subject of international trade, ordinarily considered abstruse and difficult, becomes as simple and comprehensible as the traditional A, B, C. It is not difficult. Others have mastered it; so can you.

Why do people living in New York do business, or trade, with people living in Florida or in California? Geographical specialization leads the citizens of Florida and California to devote their energies to the cultivation of oranges, lemons, bananas, and grapefruit. In exchange for these tropical fruits, the citizens of New York perform for the citizens of Florida and California services which the location of the city, its splendid harbor, and its strong financial institutions render it easy for them to perform.

Trade really *is* trade. There is, in principle, no essential difference between domestic and foreign trade. Despite our wonderful "mechanism of exchange" — money, credit, and banks — fundamentally *trade is still barter*.

The workers in a shoe factory in reality exchange a day's work for the day's work of laborers in other occupations.

Local, regional, and international transactions are, however, facilitated by the use of credit instruments and by our intricate and delicately balanced credit system.

EXPORTS AND IMPORTS

Exports and imports of merchandise. — The merchandise shipped out of the country is called our exports; the merchandise shipped into the country is called our imports. These merchandise exports and merchandise imports constitute the foundations of our foreign trade; they are the basis on which is built a growing trade in foreign exchange.

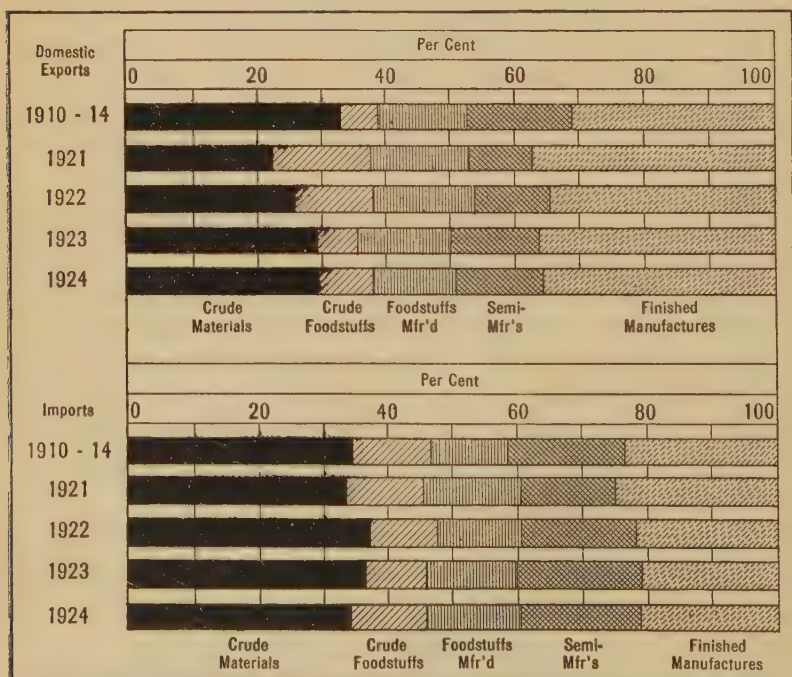


FIGURE 85. PERCENTAGE DISTRIBUTION OF FOREIGN TRADE OF THE UNITED STATES BY GREAT GROUPS

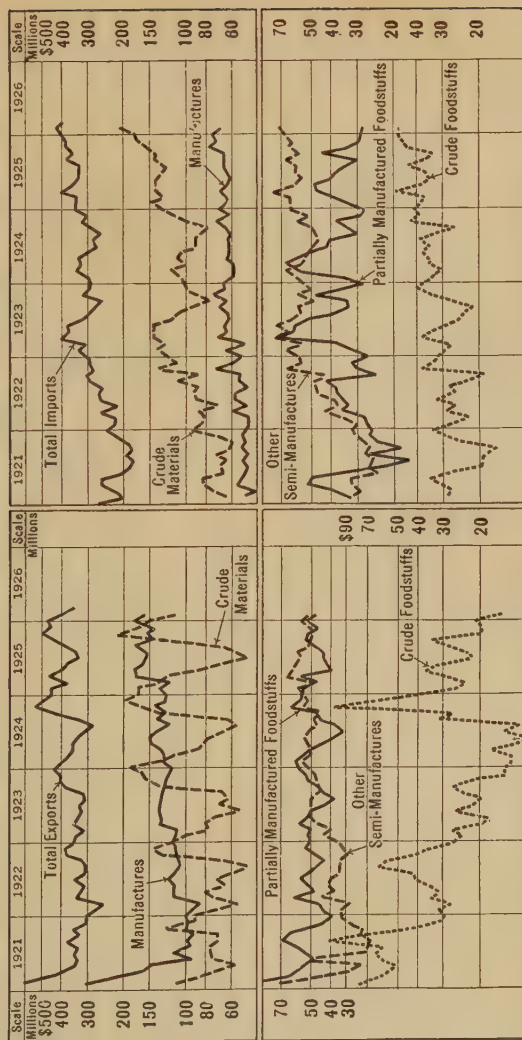


FIGURE 86. VALUE OF EXPORTS AND IMPORTS OF THE UNITED STATES¹
1921-1925

¹ Babson's Statistical Organization.

This merchandise consists of a great variety of commodities. In 1922 the most important items among the exports, in the order of their value, were the following: (1) raw cotton, (2) wheat, (3) gasoline, naphtha, etc., (4) corn, (5) automobiles and parts, (6) lard, (7) coal, (8) copper ingots and pigs, and (9) wheat flour, ranging in value from 673 millions for raw cotton to 85 millions for wheat flour.

In 1922 the most important items among the imports, in the order of their value, were the following: (1) raw silk, (2) cane sugar, (3) coffee, (4) hides and skins, (5) india rubber, (6) raw wool, (7) printing paper, (8) crude petroleum, (9) leaf tobacco, and (10) wood pulp, ranging in value from 366 millions for raw silk to 63 millions for wood pulp.

Distribution of international trade. — Europe is still the principal source of our imports and the chief customer for our exports. In 1800 European countries furnished 51.4% of our imports; in 1923 they furnished 30.5%. In 1800 the destination of 58.3% of our exports was Europe; in 1923, 50.2%. In 1800 Asia and Asiatic countries furnished 13.4% of our imports; in 1923 they furnished 30.8%. In 1800 the destination of 3.2% of our exports was Asia and Asiatic countries; in 1923, 17.2%. In 1800 North American countries furnished 35.1% of our imports; in 1923, 26.4%. In 1800 the destination of 38.3% of our exports was North American countries; in 1923, 26.1%. In 1800 South American countries furnished none of our imports; in 1923, 12.3%. In 1800 the destination of none of our exports was South America; in 1923, 6.5%.

Items of international trade. — I. *The visible items:*

1. *Merchandise* shipments abroad and *merchandise* shipments from abroad into the country constitute the first

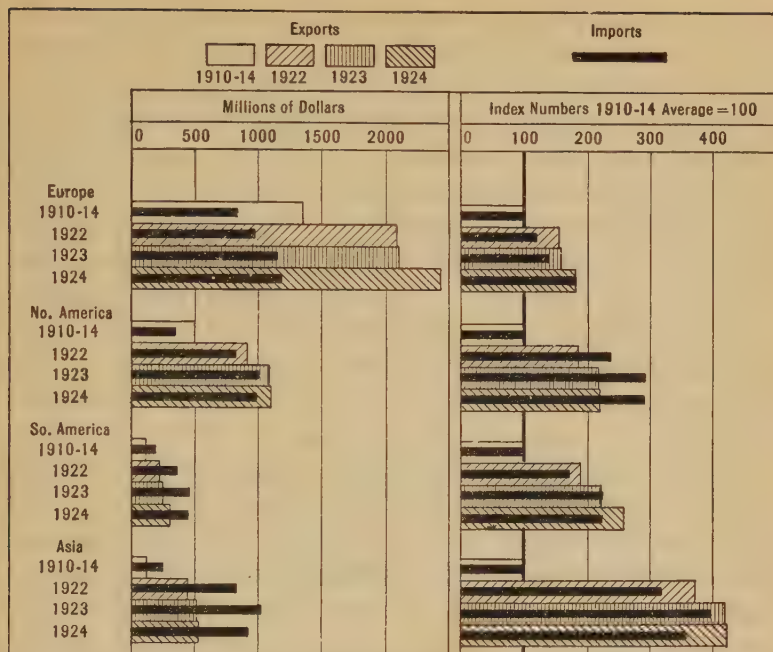


FIGURE 87. MERCHANDISE EXPORTS FROM AND IMPORTS INTO THE UNITED STATES BY CONTINENTS

and most important *visible items of trade*. They are called visible items of trade because they consist of tangible, material commodities, easily counted and measured, the movements of which can be readily followed and recorded. A cargo of merchandise is not easily brought into harbor without its presence being known; custom officials are on the lookout for importations of merchandise for the purpose of levying import duties. Elaborate and minute statistics of the movements of merchandise in international trade are compiled and rendered available.

2. *Gold and silver bullion and coin* constitute the second of the visible items of trade. Payments of money from one

country to another are made with one of these two metals. Most international payments are made in gold or in terms of gold ; but as a few countries prefer silver, in dealings with them, silver is used. When gold or silver is shipped, it goes, not as so many dollars, or as so many pounds sterling but as so many grains of pure metal. In fact, much of the gold that is transported backward and forward across the water is in the shape of bars and ingots and not in the shape of coins. All countries thus send out and receive specie. A nation which mines large quantities of the precious metals usually exports large quantities of specie in payment for the goods and services it buys abroad. South Africa, for example.

A nation which has no gold or silver mines obtains specie from abroad in payment for the goods and services it sells. Merchandise, gold, and silver constitute the visible items of export and import in international trade. They do not however, constitute all of the items of international trade.

II. The *invisible items* are to-day of great importance. These include :

1. Financial transactions of many kinds: *foreign investments, the interest and dividends thereon, the repayment of the principal of loans*, and other transactions ; and

2. Many services performed by the business men of one nation for their customers in another.

1. When older nations accumulate large volumes of capital savings, on account of the abundant supply, the rate of interest is likely to be low in the countries where it was accumulated. In newer countries, rich in undeveloped natural resources, much more capital can profitably be used than has been accumulated ; in consequence, a high rate of interest is likely to prevail.

Enterprisers in new countries seek to borrow funds from nations where savings are abundant and interest low, while capitalists in the older countries seek investments in the unexploited countries where interest rates are high. So it happens that capitalists in one country invest their savings in another. This foreign investment may take the form of loans to a foreign government or it may consist of loans to foreign business men. In either case it is made through the purchase of foreign securities.

Foreign investment is equivalent to the international buying and selling of securities. When a foreign investor buys shares of stock or the bonds of the American Telephone and Telegraph Company, he is lending his capital to an American business enterprise. The effect is the same as if he were buying American goods because he must send the money here.

When an American investor buys Japanese, British, or French bonds, he is lending funds to the Japanese, British, or French government. The effect is the same as if he bought foreign goods because he must send the money abroad.

Before the World War, the United States was a debtor or borrowing country ; large amounts of our securities had been sold abroad. The World War caused European governments to borrow immense sums from us ; our government and our investors purchased European bonds, and we became a creditor or lending nation.

A nation can *export securities* as well as merchandise ; it is the same as *importing capital* ; it can *import securities*, which is the same as *exporting capital*.

2. After funds have been borrowed *interest* must be paid on the loan. The payment of interest and dividends on foreign investments constitutes a large item in international

trade. When the American Telephone and Telegraph Company declares a dividend, payment must be made to foreign stockholders who own one per cent of the capitalization of the corporation.

When the Japanese, British, or French governments pay interest on their bonds, payment must be made to American bondholders. Before the World War, interest and dividend payments by American business concerns to foreign creditors were a large item; to-day, interest payments in this country by foreigners is a large and growing item; with financial stabilization of the late warring nations, these payments will be still larger.

3. On its expiration, a loan must be paid or renewed. *Repayment of the principal on expired international loans* is another important invisible item of foreign trade.

Thus we have three important invisible items of foreign trade which grow out of foreign investments, namely, (1) foreign investments, (2) interest and dividends thereon, and (3) payment of maturing loans.

4. Another invisible item, the aggregate of which is considerable, consists of *remittances made by immigrants and the money they take home with them*. Many aliens coming here are thrifty. They save no small part of their earnings and send it home, sometimes to bring others here, or to support those remaining there, or as a nest-egg for future financial independence. But financial transactions are not the only invisible items in foreign trade.

You and I constantly pay for services as well as for goods. This is true in international as well as in domestic trade. Services are performed by business men in one country for their customers in another; such services are invisible items of trade.

5. Important among these services is carrying mer-

chandise and passengers from one country to another — the ocean-carrying trade.

A Dutch liner may bring a cargo of British goods to an American importer; for this the shipowners must be paid. *Freight charges* will then appear as an invisible item in the trade of the two countries, Holland and the United States.

To countries that devote themselves to the ocean-carrying trade, such as Great Britain and Sweden, the carriage of goods and passengers for foreigners is like an export of merchandise because it must be paid for by the foreigners.

Countries that do not engage in the ocean-carrying trade must pay for it to those that do. Before the World War, we depended upon foreign countries for this service; during and since the war we developed a merchant marine; other countries seem to be able to perform this service at less cost than we. What to do with the Shipping Board and its many ships is a puzzling problem.

6. Another invisible item of considerable magnitude consists of *travelers' expenses*.

Many Americans travel abroad; an increasing number of foreigners travel in this country. These travelers must all have money to pay for steamship and railway tickets, hotel accommodations, the service of guides, etc. These expenses of Americans traveling abroad are similar to purchases of commodities abroad in that they result in claims for money to be sent out of the country; they are invisible imports.

When foreigners travel in this country, their expenditures act similarly to merchandise exports because they result in creating American claims for money abroad; they are, therefore, invisible exports.

Still other services rendered by business men in one country

for business men in another country figure in international trade.

7. *Insurance* is one. Foreign insurance companies do a large business in this country. Prominent among foreign fire insurance companies that operate here are the Imperial, London, Northern, Queen, and Liverpool, London and Globe insurance companies. The famous Lloyd's of London will insure a customer against any conceivable risk; most of the marine insurance of the world is carried in foreign companies.

Payments here of premiums to these companies act like imports of merchandise because they result in foreign claims for money in this country; they are invisible imports.

On the other hand, when these foreign companies pay losses to American clients, these payments are like exports of merchandise because they result in American claims for money abroad.

American life insurance companies do a considerable volume of business outside our own borders; premium payments to these companies are like the export of merchandise because they result in American claims for money abroad; when American companies pay losses abroad, these payments are like imports of merchandise because they result in foreign claims for money in this country.

8. The last items in international trade that we shall mention are *bankers' and brokers' commissions*.

When an American banker or broker performs a service for a foreigner, of course, he charges for the service. That charge increases the amount of the claims of this country abroad, hence it acts like an export of merchandise for which we are paid.

When a foreign banker or broker performs a service for an American, of course, he charges for the service. That

charge increases the amount of the claims of other countries on this country, hence it acts like an import of merchandise for which we must pay. All of these various items that figure in international trade, both visible and invisible, appear in the following chart of the items of international trade.

The foregoing discussion may be condensed in the following summary.

I. VISIBLE

<i>Exports</i>		<i>Imports</i>	
Shipped abroad by us.	1. Merchandise.	Shipped here from abroad.	
Shipped abroad by us.	2. Gold and silver.	Shipped here from abroad.	

II. INVISIBLE

<i>Exports</i>		<i>Imports</i>	
Made here by foreigners.	1. Investments.	Made abroad by Americans.	
Due here from our investments abroad.	2. Interest and dividends.	Due abroad on investments made here by foreigners.	
Due here from loans made abroad by Americans.	3. Maturing loans.	Due abroad from loans made here by foreigners.	
Made by foreigners to immigrants here.	4. Remittances.	Made by immigrants here to friends abroad.	
Due here for freight carried in American ships.	5. Freight charges.	Due abroad for freight carried in foreign ships.	
Spent by foreigners traveling here.	6. Travelers' expenses.	Spent by Americans traveling abroad.	
Paid American companies by foreigners.	7. Insurance.	Paid foreign companies by Americans.	
Paid American bankers by foreigners.	8. Bankers' commissions.	Paid foreign bankers by Americans.	

FIGURE 88. ITEMS OF FOREIGN TRADE

Let us sum up the effects of exports and imports on the rate of exchange.

I. VISIBLE EXPORTS AND IMPORTS

A. *In case of merchandise, gold, or silver exported from this to a foreign country, England for instance, the effect is to increase the demands of New York on London. That will have a tendency to cause the price of "sterling exchange," i.e., of bills of exchange payable in London and drawn in terms of pounds, shillings and pence, to decline in terms of dollars and cents.* On the other hand, it will have a tendency to cause the price of "dollar exchange," bills of exchange payable in New York and drawn in terms of dollars and cents *to advance in terms of pounds, shillings, and pence.*

B. *In the case of merchandise, gold, or silver imported into this country from a foreign country, England for instance, the effect is to increase the demand of London on New York. That will have a tendency to cause the price of "sterling exchange" to rise in terms of dollars and cents.* On the other hand, it will have a tendency to cause the price of "dollar exchange" *to decline in terms of pounds, shillings, and pence.*

II. INVISIBLE EXPORTS AND IMPORTS

The effect of an invisible export or of an invisible import is exactly the same as that of a visible export or a visible import. A. We have seen that the effect of the *export* of merchandise, gold, or silver is to cause the price of "sterling exchange" *to decline.* Similarly, (1) the investments made here by foreigners, (2) interest and dividends due here from abroad, (3) maturing loans due here from abroad, (4) remittances made by foreigners to immigrants here, (5) freight

charges due here for freight carried in American ships, (6) travelers' expenses incurred by foreigners traveling here, (7) insurance paid American companies by foreigners, and (8) bankers' commissions paid American Bankers by foreigners *are all invisible exports*, hence, they act the same as visible exports, that is they have a *tendency to cause the price of "sterling exchange" to decline in terms of dollars and cents, and on the other hand, to cause the price of "dollar exchange" to advance in terms of pounds, shillings, and pence.*

B. On the other hand, we have seen that the effect of the *import* of merchandise, gold, or silver is to cause the price of "sterling exchange" to *advance*. Similarly, (1) investments made abroad by Americans, (2) interest and dividends due abroad on investments made here by foreigners, (3) maturing loans due abroad from money lent here by foreigners, (4) remittances made by immigrants here to friends abroad, (5) freight charges due abroad for freight carried in foreign ships, (6) expenses of Americans traveling abroad, (7) insurance paid foreign companies by Americans, and (8) bankers' commissions paid foreign bankers by Americans, *are all invisible imports*, hence, they act the same as the visible imports, that is, they have a *tendency to cause the price of "sterling exchange" to advance in terms of dollars and cents, and on the other hand, to cause the price of "dollar exchange" to decline in terms of pounds, shillings, and pence.*

In one word, all exports, visible or invisible, tend to cause the rate of British and other foreign exchange in New York to decline, and all imports, visible or invisible, tend to cause it to advance.

The true "balance" of trade. — When bookkeepers speak of "a balance," they mean the *difference* between the debit and the credit sides of an account. If you owe me \$125 and I owe you \$100, there is a balance of \$25 in my

favor. That is the bookkeeping use of the word "balance"; it is a perfectly legitimate use of the word.

However, that is not what economists mean when they speak of a "balance" of trade. By a "balance" a physicist means an equilibrium; the two sides of a pair of scales "balance" when they hold even, when the weight on one side just "balances" the weight on the other side. Economists mean the same when they speak of the balance of trade.

By a balance of international trade economists mean an equilibrium between all credit and all debit items both visible and invisible. Excess of merchandise exports over merchandise imports is wrongly called a "favorable" balance of trade, and an excess of imports over exports an "unfavorable" balance of trade.

In any honest exchange, both parties gain, whether they be individuals, communities, or nations.

In *Babson's Report* for May 19, 1925, there is a discussion of the Real Balance of Trade which is here reproduced:

"Many have wondered how the United States could continue to sell more goods abroad than were bought. In 1924, for example, we had a balance of merchandise exports amounting to \$970,000,000. At the same time we exported \$258,000,000 more gold than we imported. *The answer lies in the invisible items of the trade balance and in the floating of foreign loans in the United States market.* The following table, prepared by Mr. Rufus S. Tucker of the U. S. Department of Commerce, furnishes some very interesting estimates as to the size of these various items. Under the *credit* column are listed all sums that involve payment to the United States, while under the *debit* column are placed all the items that necessitate disbursements from the United States. For example, merchandise exports are a credit item, while imports are a debit item in the Inter-

national Trade Balance. In the third column, the net credit balances are indicated by a plus sign, while the net debit balances are shown by a minus sign."

TABLE 46

ESTIMATED BALANCE OF INTERNATIONAL PAYMENTS OF UNITED STATES

[Values in millions of dollars]

ITEMS	1923			1924		
	CREDIT	DEBIT	BALANCE	CREDIT	DEBIT	BALANCE
CURRENT ITEMS						
Visible current items: Merchandise	4,210	3,822	+ 388	4,621	3,651	+ 970
Invisible current items:						
Interest and dividends . . .	567	150	+ 417	614	150	+ 464
Ocean freights	65	73	- 8	76	68	+ 8
Governmental payments . . .	—	19	- 19	—	5	- 5
Services to tourists	100	500	- 400	100	600	- 500
Charitable and missionary expenditures	—	70	- 70	—	55	- 55
Immigrants' remittances . . .	60	350	- 290	—	300	- 300
Total, invisible current items	792	1,162	- 370	790	1,178	- 388
Total, current items except gold and silver	5,002	4,984	+ 18	5,411	4,829	+ 582
MOVEMENT OF CAPITAL						
New foreign loans, exclusive of refunding	—	363	- 363	—	795	- 795
Sale and purchase of outstanding securities	412	54	+ 358	319	114	+ 205
Foreign bonds paid off	23	—	+ 23	45	—	+ 45
Principal of interallied debt . .	91	—	+ 91	23	—	+ 23
United States paper currency . .	50	—	+ 50	—	50	- 50
Total, capital items	576	417	+ 159	387	959	- 572
GOLD AND SILVER						
Gold	29	323	- 294	62	320	- 258
Silver	72	74	- 2	110	74	+ 36
Total, gold and silver	101	397	- 296	172	394	- 222
Total, all items	5,679	5,798	- 119	5,970	6,182	- 212
Add increase in foreigners' bank deposits, as revealed by questionnaire	—	—	+ 3	—	—	+ 216
Balance (representing errors and omissions)	—	—	- 116	—	—	+ 4

“Invisible items represent a charge of perhaps \$388,000,000 annually against this country, which serves in part to offset the large “favorable” balance of merchandise exports. The largest item entering into the Trade Balance, aside from merchandise, is that of new foreign borrowing — that is, foreign loans sold in the United States. In 1924 this amounted to about \$795,000,000. There are also other items involved in the movement of capital, but the net capital movement represented a charge of about \$572,000,000 against the United States last year.

“Still another item of very decided importance is the increase in foreigners’ bank deposits. We doubt if any close estimate of this item is possible, but the questionnaire conducted by Mr. Tucker places the increase in foreigners’ deposits at \$216,000,000 during the year 1924. This probably is a minimum figure. The question now arises as to what the trend of foreigners’ bank deposits will be in view of the fact that England is reestablishing a gold exchange basis. Our opinion is that many foreigners would rather keep their active deposits in England than in America once they are sure that they can count on a stable rate of sterling exchange.”

Law of comparative costs. — One country, China for instance, exports tea and silk and imports manufactured goods; another country, our own for instance, exports manufactured goods and imports tea and silk. England, it may be, exports iron, steel products, and woolen goods, and imports raw materials and foodstuffs. Each nation sells certain products and buys others.

These international exchanges are based upon what we have already called the territorial division of labor or, in other words, geographical specialization. Men tend to buy where they can buy cheapest; they can buy cheapest

where the conditions of production are most favorable for cheap production. From this we get what is called the law of comparative costs. It is stated as follows: *A nation tends to import those goods which other countries can produce more cheaply than it, and to export those goods which it can produce more cheaply than other countries.*

There are two different conditions under which one nation may import the products of another.

First, *when the other country has an absolute advantage.* Tropical countries have an absolute advantage over the United States in the production of coffee, rubber, spices, bananas, etc. The climate of tropical countries favors the production of these commodities; our climate does not; nor are our workers trained in such industries. We could, at great expense, produce these commodities. Doubtless you have seen, in hothouses, rubber trees and banana plants. With us, they are mere curiosities, but in tropical countries, they are staple products. It is cheaper for us to import these commodities than to produce them. In turn, the United States has an absolute advantage over other countries in the production of certain other products. For example, the climate, soil, and cheap negro labor of the South enable us to raise cotton at less expense than it can be done in other parts of the world. Consequently, in value, our largest single export is cotton. In 1922 it was valued at no less than 673 millions of dollars. We have an absolute advantage in raising cotton. The essence of absolute advantage lies in climate, natural resources or people, or in the combination of these factors which makes it possible for one country to produce more of a particular commodity per unit of labor and capital. This is what is meant by absolute advantage.

Second, *when the other country has a comparative advantage.*

It may be profitable for one country to import a certain commodity from some other country, although it can itself produce that commodity more cheaply than that other country.

The illustration often given to explain this apparent contradiction is that of a lawyer who hires a typist to act as his clerk and to prepare his legal papers. The lawyer may be able to do that work more accurately than the typist, but it does not pay him to do it for the reason that he can personally give his time and attention to other tasks that are of greater importance; in this instance the typist has a *comparative* advantage over the lawyer in clerkship and typewriting.

It is similar in the trade between two nations. For example, the United States can raise flax more cheaply than either Ireland or Germany, but we import most of the flax that we use. The reason for our importing flax when we can raise it for less cost than our competitors is that we can use the land to raise cotton and wheat and thus make more than we could by using it to grow flax.

Another example is our importation of raw wool from Australia and meats from Argentine, although the land in this country is well adapted to raising sheep and cattle. To-day, comparatively little raw wool is native and cattle ranches are disappearing. We have so great an advantage over other nations in the production of certain commodities, cotton and wheat for example, and so much smaller advantages in the production of wool and of meat that we find it profitable to devote our labor and capital exclusively to the production of the commodities in which we have the greatest advantage.

Australia has a *comparative* advantage over us in the production of wool, and Argentine is beginning to have a *comparative* advantage over us in the production of beef.

Re-statement of the law of comparative costs: *A country may profitably import an article it can produce more cheaply than another country if it can produce for export some other commodity at a still greater advantage.*

Two other laws of exchange. — *First.* We have learned that in the final analysis it is still true that *all trade is barter*. It is still true that you and I give what we have, services or goods, in exchange for what we want, be they services or goods.

It is the same with two parts of a great country such as ours. Montana exchanges its wheat for the fruit of California, the coal of Pennsylvania, the banking facilities of New York.

This truth holds good of the trade relations between nations. Each exchanges what it can produce cheaply for what other countries can produce cheaply.

This fact is embodied in a law which takes its name from a famous French economist. *Say's law* is as follows: *The total volume of trade depends upon the total volume of production.*

A country cannot buy abroad unless it has something to give in exchange, nor can a nation sell abroad unless it is willing to accept in payment the goods of other countries.

This law has practical applications. Here is one of them.

The United States is desirous of increasing its exports to South America. In 1923 only 6.5% of our exports went to that continent. The only way that South America can pay for imports from the United States is to send us either directly or indirectly the commodities she produces. We cannot hope to sell our goods to South America unless we are willing to take in payment the products of South America.

Second. The law of reciprocity. We have learned that

in the intercourse of nation with nation only a relatively small amount of specie changes hands. In 1924 specie shipments into this country and from here abroad amounted to less than five per cent of the other items comprising our exports and imports.

How is the remaining ninety-five per cent paid for? *They cancel each other.*

From this we can formulate the law of reciprocity as follows:

The exports of a nation (visible and invisible) pay for its imports, and its imports (visible and invisible) are paid for by its exports; in the long run the two must be equal.

MECHANISM OF FOREIGN TRADE

Foreign bills of exchange. — The only essential difference between domestic and foreign bills of exchange is that the drawer and drawee of the former live in the same country, while the drawer and drawee of the latter live in different countries.

Please turn back to Chapter XIV and reexamine the draft drawn by your father, George H. Nash, on M. R. Street of Chicago for \$1,000 (page 317). That was a domestic draft because both parties to it live in the same country.

Let us suppose that your father still lives in Brooklyn but that Mr. Street has moved to London, England. Your father sells grain to the amount of \$1,000 to Mr. Street. In this case your father will draw on Mr. Street, using documents in duplicate. These documents will look like the following foreign bill of exchange shown at the top of the following page.

Foreign bills of exchange are drawn in duplicate chiefly for an historical reason. It is an old custom which arose when ocean travel was much more perilous than it is to-

day; in former times the two bills were dispatched by two different ships; to-day they are sent by two different steamers.

\$1000⁰⁰/₁₀₀ _____ Brooklyn, N.Y., July 1, 1926
 _____ At AFTER SIGHT _____ OF THIS

FIRST OF EXCHANGE (SECOND UNPAID) PAY TO THE ORDER OF

THE NATIONAL CITY BANK OF NEW YORK

~~One thousand and 100/100 Dollars~~

VALUE RECEIVED WHICH CHARGE TO THE ACCOUNT OF

~~Mr. R. Street,~~
9 Threadneedle St.,
London, England

George H. Nash

NO. T76 _____

\$1000⁰⁰/₁₀₀ _____ Brooklyn, N.Y., July 1, 1926
 _____ At AFTER SIGHT _____ OF THIS

SECOND OF EXCHANGE (FIRST UNPAID) PAY TO THE ORDER OF

THE NATIONAL CITY BANK OF NEW YORK

~~One thousand and 100/100 Dollars~~

VALUE RECEIVED WHICH CHARGE TO THE ACCOUNT OF

~~Mr. R. Street,~~
9 Threadneedle St.,
London, England

George H. Nash

NO. T76 _____

FIGURE 89. A FOREIGN BILL OF EXCHANGE, IN DUPLICATE

How foreign accounts are settled. — A. The Nash-Street transaction. Your father will attach to his drafts on Mr. Street a bill of lading received from the steamship company, marine and war risk insurance certificate, and possibly some other papers. All of these documents he will

deposit with the National City Bank of New York; the bank will discount the draft and credit your father's account \$1,000 less the discount.

The National City Bank of New York then forwards all of the documents to the London City and Midland Bank in London for collection of the draft; on receipt of the documents the London City and Midland Bank will notify Mr. Street that it holds a sight draft on him for \$1,000 with accompanying papers.

As Mr. Street cannot obtain his grain from the steamship company unless he has possession of the bill of lading, etc., he calls at once at the London City and Midland Bank and pays them \$1,000, and the documents are surrendered to him.

The London City and Midland Bank now owes the National City Bank of New York on the Nash-Street transaction \$1,000.

B. *The Taylor-New transaction.* Now let us suppose that S. G. Taylor, an English merchant, sells cloth to P. M. New, a New York importer, for \$1,000.

To simplify the transaction we shall further suppose that Mr. Taylor's bank is the London City and Midland Bank of London, and it also happens that the London City and Midland Bank is the English correspondent of your father's bank, the National City Bank of New York.

In this case the English merchant, Mr. Taylor, draws his draft in duplicate for \$1,000 against Mr. New, the New York importer; Mr. Taylor deposits his papers in the London City and Midland Bank; the bank discounts his draft for \$1,000, forwards the documents to its American correspondent, the National City Bank of New York; the National City Bank of New York notifies Mr. New that it holds a sight draft for \$1,000 against him, with the accompanying papers.

As Mr. New cannot obtain his cloth from the steamship company without possession of the bill of lading, etc., he calls at once on the National City Bank of New York and pays them \$1,000 and the documents are surrendered to him.

Now the National City Bank of New York owes the London City and Midland Bank \$1,000 on the Taylor-New transaction. But the London City and Midland Bank owes the National City Bank of New York \$1,000 on the Nash-Street transaction; *these two indebtednesses cancel each other* and no money need be shipped across the ocean.

These two transactions involving the sale of and payment for American grain to an English importer and the sale of and payment for English cloth to an American importer are illustrated by the diagram below.

Inasmuch as the bills of exchange drawn by Nash on Street and by Taylor on New are expressed in terms of American money and payable in New York they are known as "Dollar Exchange."

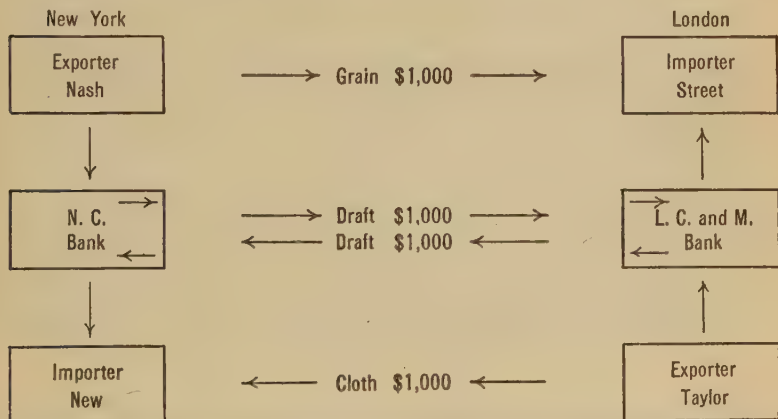


FIGURE 90. DIAGRAM ILLUSTRATING THE NASH-STREET AND TAYLOR-NEW TRANSACTIONS

APPLICATION FOR COMMERCIAL LETTER OF CREDIT

July 13, 1927

THE NATIONAL CITY BANK OF NEW YORK
75 WALL STREET
NEW YORK, N. Y.

GENTLEMEN

WE HEREBY REQUEST YOU TO ISSUE BY CABLE MAIL YOUR IRREVOCABLE REVOCABLE LETTER OF CREDIT, IN ANY OF YOUR USUAL FORMS.

AS FOLLOWS:

IN FAVOR OF George H. Nash

FOR ACCOUNT OF Mr. R. Street, 9 Threadneedle St., London, England

UP TO THE AGGREGATE AMOUNT OF \$25,000.00

AVAILABLE BY sight DRAFTS DRAWN AT YOUR OPTION, ON YOU OR YOUR CORRESPONDENTS
(PLEASE SPECIFY TENOR)

FOR _____ PER CENT AMOUNT OF INVOICE

WHEN ACCOMPANIED BY THE FOLLOWING DOCUMENTS (PLEASE INDICATE BY CHECK BELOW)

☒ FULL SET BILLS OF LADING DRAWN

TO ORDER OF THE NATIONAL CITY BANK OF NEW YORK

NOTIFY us

CALLING FOR SHIPMENT TO Mr. R. Street, London, England

☒ COMMERCIAL INVOICE STATING THAT IT COVERS wheat
(PLEASE MENTION COMMODITY ONLY, OMITTING DETAILS AS TO GRADE, QUALITY, PRICE, ETC.)

☒ CONSULAR INVOICE

☒ MARINE INSURANCE POLICY OR CERTIFICATE

☒ WAR RISK INSURANCE POLICY OR CERTIFICATE

☐ OTHER INSURANCE POLICY OR CERTIFICATE (IF OTHER INSURANCE IS REQUIRED, PLEASE STATE RISKS)

☐ OTHER DOCUMENTS (IF SPECIAL DOCUMENTS ARE REQUIRED, PLEASE STATE NAME OF COMPANY TO ISSUE SAME)

INSURANCE TO BE EFFECTED BY _____ (IF INSURANCE EFFECTED OTHER THAN BY SHIPPERS, GIVE ALSO THE NAMES OF COMPANIES WRITING SUCH INSURANCE)

BILLS OF LADING TO BE DATED NOT LATER THAN January 3, 1927

BILLS OF EXCHANGE TO BE NEGOTIATED NOT LATER THAN January 17, 1927

SHIPPING DOCUMENTS FOR CUSTOM HOUSE ENTRY TO BE SENT TO Mr. R. Street, 9 Threadneedle St., London, England

In consideration of your issuing a Letter of Credit substantially conforming with the above request, we hereby agree, when requested by you, to sign and deliver to you an Indemnity Agreement in a form satisfactory to you, and we further agree that each and all of the provisions of any general Indemnity Agreement heretofore signed and delivered to you by us, or any of us, relating to Letters of Credit issuable by you, in the absence of written agreement to the contrary, shall be deemed to be incorporated as a part of the above request.

RESPECTFULLY YOURS,

George H. Nash

KINDLY SIGN WITH AN AUTHORIZED SIGNATURE
REGISTERED WITH US

FD 199-PS

FIGURE 91. APPLICATION FOR A COMMERCIAL LETTER OF CREDIT

Commercial letter of credit. — Let us suppose, again, that Mr. Street, who now lives in London, England, and not in

FORM 2

THE NATIONAL CITY BANK OF NEW YORK
55 WALL STREET

IRREVOCABLE CREDIT NO. 100,000

NEW YORK July 15, 1926

ALL DRAFTS DRAWN MUST BE MARKED:
DRAWN AS PER ADVICE NO. 8

George H. Nash
Brooklyn, New York

DEAR SIR:

WE HEREBY AUTHORIZE YOU TO VALUE ON London City and Midland Bank
London, England

FOR ACCOUNT OF M. R. Street, 9 Threadneedle St., London, England

UP TO THE AGGREGATE AMOUNT OF 25,000 ⁰⁰/₁₀₀

AVAILABLE BY YOUR DRAFTS AT sight

TO BE ACCOMPANIED BY CONSULAR INVOICE

DRAWN TO THE ORDER OF ourselves

AND COMMERCIAL INVOICE EVIDENCING SHIPMENT OF wheat

FOR INVOICE COST

BILLS OF LADING

marine and war risk INSURANCE

BILLS OF LADING MUST BE DATED NOT LATER THAN January 3, 1927

BILLS OF EXCHANGE MUST BE NEGOTIATED NOT LATER THAN January 17, 1927

A COPY OF THE CONSULAR INVOICE, COMMERCIAL INVOICE, AND ONE BILL OF LADING MUST BE FORWARDED BY FIRST MAIL DIRECT TO:

ATTACHING TO THE DRAFT A STATEMENT TO THAT EFFECT. ALL REMAINING DOCUMENTS MUST ACCOMPANY THE DRAFT.

THE AMOUNT OF ANY DRAFT DRAWN UNDER THIS CREDIT IS TO BE ENDORSED ON THE REVERSE SIDE HEREOF.

WE HEREBY AGREE WITH THE DRAWERS, ENDORSERS AND BONA FIDE HOLDERS OF DRAFTS DRAWN UNDER AND IN COMPLIANCE WITH THE TERMS OF THIS CREDIT THAT THE SAME SHALL BE DULY HONORED ON DUE PRESENTATION TO THE DRAWEE.

YOURS VERY TRULY,

THE NATIONAL CITY BANK OF NEW YORK

FD 976-BM-1-26

FIGURE 92. COMMERCIAL LETTER OF CREDIT

Chicago, Illinois, was so much pleased with the promptness and business sagacity he had long observed in your father's

business transactions that he writes your father that he would like to buy \$25,000 worth of grain to be delivered at intervals of two weeks at \$2,500 a shipment. He further proposes that he will establish a credit at the London City and Midland Bank for \$25,000 against which your father can draw, \$2,500 each shipment.

Your father will make application to the National City Bank of New York for a commercial letter of credit using the form shown on page 380.

The document that your father will get from the National City Bank of New York will authorize him to draw at intervals against Mr. Street up to a total of \$25,000, and it is known as a commercial letter of credit. It will look like the form shown on page 381.

On July 15 your father ships \$2,500 worth of wheat to Mr. Street; he carries the sight draft below for \$2,500 to the National City Bank of New York; presents it and the accompanying papers to the bank; they discount the draft at once, and credit his account with the proceeds. The draft will be as follows:

\$ <u>2500</u> ⁰⁰ / ₁₀₀	July 15, 1926
At sight	PAY TO THE ORDER OF
ourselves	
Twenty five hundred and ^{no} / ₁₀₀	DOLLARS
VALUE RECEIVED, AND CHARGE TO ACCOUNT OF LETTER OF CREDIT N. C. B. No. 100,000	
TO THE NATIONAL CITY BANK OF NEW YORK	
55 WALL STREET	
NEW YORK, N. Y.	
George H. Nash	

FD 440 BM PB 3-26

FIGURE 93. DRAFT USED IN CONNECTION WITH A COMMERCIAL LETTER OF CREDIT

Par of exchange and rate of exchange. — The transactions we have been describing in the past few sections were all in the terms of the American dollar, that is they created “dollar exchange.”

By no means are all bills of exchange drawn in dollars and cents; other countries use money in different denominations, and, consequently, bills of exchange drawn in those countries are usually in terms of the countries in which they are drawn. This practice leads to an arithmetical complication. It is always necessary for other countries to translate bills so drawn into terms of their respective monetary units.

The “par of exchange” is the mathematical equivalence of the standard coin of one country in terms of the standard coin of another country, and it is found by dividing the number of grains of pure gold in the larger coin by the number of grains of pure gold in the smaller coin. For example, the English standard coin is the pound sterling and it contains 113.0015 grains of pure gold; the American standard coin is the dollar and it contains 23.22 grains of pure gold; therefore, the par of exchange is found by dividing 113.0015 by 23.22, which gives 4.8665. Hence, the par of exchange between the United States and Great Britain is \$4.86⁺.

You will please notice that *the par of exchange relates to coins; it is a mathematical relation and it never changes.* On the other hand, the “rate of exchange” does not refer to coins at all.

The rate of exchange refers to paper substitutes for coins; it is the price of bills of exchange, and it fluctuates according as the demand for and the supply of bills of exchange is abundant or scarce.

“Sterling exchange” consists of bills of exchange drawn in terms of pounds, shillings, and pence and payable in London; French exchange consists of bills of exchange drawn in francs and payable in Paris, etc.

Gold points. — The price of these paper substitutes for gold is constantly fluctuating, but, under normal conditions, these fluctuations are always within certain definite limits. Inasmuch as bills of exchange exist solely for the purpose of saving the actual shipment of gold, the prices of these paper substitutes for gold will not, under normal conditions, go above nor below what it would cost to ship gold itself.

If a debtor finds that he can pay his debt abroad by purchasing a bill of exchange for less than it would cost him to buy the gold, pack it, insure it, and ship it, he will purchase the paper substitute for the gold; and if a creditor finds that he will lose less by accepting a paper substitute for gold than it would cost him to pay for having it packed, insured, and shipped, he will be willing to accept a bill of exchange.

It costs about two cents to ship a pound sterling from New York to London; therefore the ordinary limits of fluctuations in the price of sterling exchange is $4.86 + .02$ or \$4.88 and $4.86 - .02$ or \$4.84. Therefore the "gold points" of sterling exchange are 4.88 and 4.84. The "gold points" for sterling exchange are illustrated by the following diagram :



FIGURE 94. GOLD POINTS FOR STERLING EXCHANGE

The par of exchange between New York and Paris is 5.182 francs for a dollar, or, as it is now quoted, a French gold franc is worth .193. The gold export point would be about .194 and the gold import point would be about .192. The following diagram illustrates the gold points for French exchange in New York :

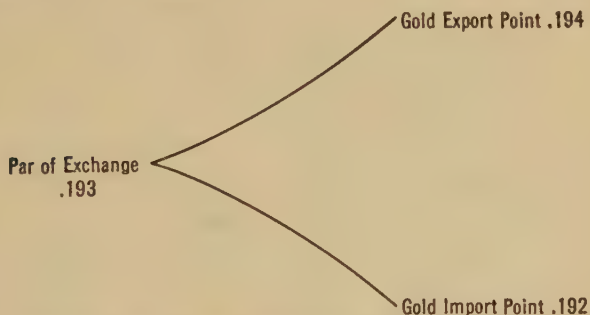


FIGURE 95. GOLD POINTS FOR FRENCH EXCHANGE

The par of exchange between New York and Berlin is 95.28 cents for four marks, or, as it is now quoted, a German gold mark is worth .2382. The gold export point is .2406 and the gold import point is .2362. The following diagram illustrates the gold points for German exchange in New York :

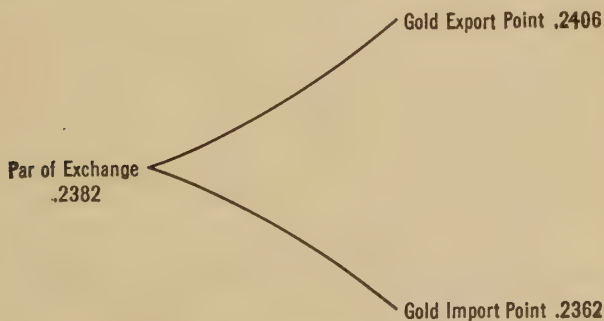


FIGURE 96. GOLD POINTS FOR GERMAN EXCHANGE

TABLE 47

FOREIGN EXCHANGE

DEMAND	JANUARY			NET CHANGE	PARITY	1925	
	High	Low	Last			High	Low
London, stlg. . .	4.86 $\frac{1}{8}$	4.84 $\frac{9}{16}$	4.86 $\frac{1}{8}$	+ .01 $\frac{1}{4}$	4.8665	4.86 $\frac{1}{4}$	4.74 $\frac{1}{8}$
Paris, fr. . .	.039	.0371	.0377 $\frac{1}{4}$	+ .0003	.193	.0544 $\frac{1}{2}$	.0357 $\frac{1}{2}$
Italy, lr. . .	.0403 $\frac{3}{4}$	.0402 $\frac{1}{2}$	.0402 $\frac{1}{2}$	+ .000 $\frac{1}{2}$	.193	.0429	.0332 $\frac{3}{4}$
Belgium, fr. . .	.0454 $\frac{1}{2}$	.0453	.0454 $\frac{1}{4}$	+ .0001	.193	.0520 $\frac{1}{2}$	.0433 $\frac{1}{2}$
Switz'd, fr. . .	.1932 $\frac{1}{2}$	.1927 $\frac{1}{2}$	.1927 $\frac{1}{2}$	+ .0005 $\frac{1}{2}$	.193	.195	.192
Germany, mk. . .	.2381	.2381	.2381	—	.2382	.2382	.2378
Holland, flr. . .	.4023	.4008	.4008	+ .0015	.402	.4059	.3979
Austria, sch. . .	.14125	.14125	.14125	—	¹ —	.14375	.14125
Czechoslov, cr. . .	.0296 $\frac{3}{4}$	.0296	.0293	— .0000 $\frac{3}{4}$	.203	.0302	.0295 $\frac{1}{2}$
Denmark, krn. . .	.249	.2468	.2469	— .0004	.265	.2528	.1766
Finland, fmk. . .	.0256 $\frac{3}{4}$	.0252 $\frac{1}{4}$	.0252 $\frac{1}{4}$	— .0000 $\frac{1}{2}$	.193	.0253	.0251 $\frac{3}{4}$
Greece, dr. . .	.014	.0128 $\frac{1}{2}$	.0139 $\frac{1}{2}$	+ .0011	.193	.0197	.0126 $\frac{1}{4}$
Hungary, cr. . .	.0014 $\frac{1}{8}$	.0014 $\frac{1}{8}$	.0014 $\frac{1}{8}$	—	.203	.0014 $\frac{1}{8}$	.0013 $\frac{1}{4}$
Norway, krn. . .	.204	.2026	.2034	+ .0004	.268	.2244	.1512
Poland, mk. . .	.16	.11	.14	+ .02	.238	.1925	.10
Rumania, leu . .	.0046 $\frac{1}{8}$	.0043 $\frac{1}{2}$	.0045	— .4580	.193	.53	.45
Jugoslavia, fr. . .	.0177 $\frac{3}{4}$	.0177	.0177 $\frac{1}{2}$	—	.193	.0182	.0154 $\frac{1}{2}$
Spain, psta. . .	.1420	.1411	.1413	+ .0001	.193	.1468	.1397
Portugal, esco. . .	.0527	.0516	.0517	+ .0001	1.0805	.0528	.0485
Sweden, krn. . .	.2683	.2674	.2675	— .0008	.268	.2696	.2672
Hongkong, \$. .	.5875	.5825	.5850	— .00125	varies	.6038	.54125
Pekin, tael . . .	.7925	.7825	.7825	— .01	with price	.8375	.7625
Shanghai, tael . .	.7563	.7413	.7425	— .0138	of silver	.7963	.7312
Calcutta, rpee. . .	.3687	.3669	.3687	+ .0012	.48665	.3675	.3536
Philippines, pso. .	.50125	.4975	.4975	— .00375	.50	.5025	.4937
Java, fl.	.405	.40375	.405	+ .00125	.402	.415	.4025
Japan, yen	.4488	.4313	.4481	+ .0168	.498	.4363	.3825
Arg'tine, pap. \$. .	.4143	.4131	.41375	—	.4244	.4163	.375
Brazil, mreis. . .	.1506	.145	.1481	+ .0006	.3425	.1518	.101
Chile, pso. . . .	.1213	.1192	.1213	+ .0015	.25	.1232	.1042
Peru, lb.	.0397	.0388	.0388	— .0009	4.8665	.0424	.0324
Uruguay, pso. . .	1.0325	1.0275	1.0312	+ .92843	1.0342	1.0312	.9407
Canada, \$	.999	.9975	.9981	— .0009	1.00	1.001875	.995

¹ Price of one Austrian schilling, representing value of 10,000 Austrian crowns. Previous quotation for crown had been at rate of \$14.12 $\frac{1}{2}$ per million crowns.

In abnormal times, gold points are of theoretical interest only; in January, 1926, French exchange stood at $.0378\frac{1}{4}$, but German exchange (based upon the new *renten mark*) stood at .2381.

Our definition of gold points is: *the upper and lower limits in the fluctuations of the price of bills of exchange, fixed by the cost of shipping gold.*

The table on preceding page, taken from *Barron's Monthly Quotation Record* for January, 1926, gives the prices in New York, for that month, of bills of exchange drawn in terms of the principal moneys of the world.

Form the habit of looking in the financial pages of the daily newspaper and keep track of the price of foreign exchange.

The following chart graphically depicts the course of the

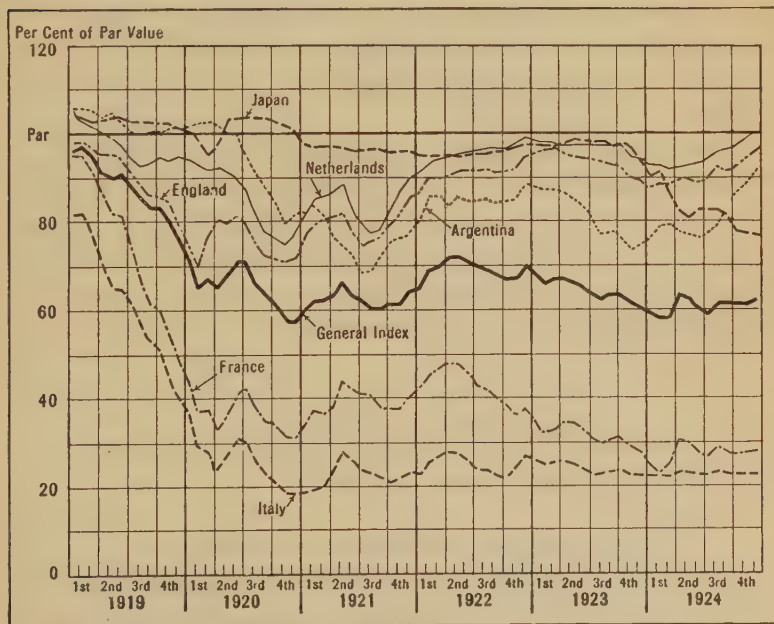


FIGURE 97. DEPRECIATION OF RATE EXCHANGE, 1919-1924

rate of exchange in New York for bills of exchange drawn in terms of the moneys of France, England, Italy, the Netherlands, Argentina, and Japan for 1919-1924.

Why "francs" and "lire" sell so far below par. — When "the times are out of joint" and conditions are not normal, the price of bills of exchange do not fluctuate between the limits of the gold points. The financial conditions in France and Italy are not "normal"; in neither of these countries has the government been able "to balance its budget," that is, they have not made arrangement by suitable taxation to raise the money needed to pay their expenses. Nominally, they have paid their current expenses but they "paid" them by the issue of irredeemable paper money. The volume of this irredeemable paper money has become so large that the price of a paper franc is about 3 cents and a paper lira is worth about 4 cents, although a gold franc and a gold lira is each worth 19.3 cents.

French exchange is drawn in francs and is payable in France in *paper francs*; Italian exchange is drawn in lire and is payable in Italy in *paper lire*; when paper francs are worth only 3 cents and paper lire are worth only 4 cents, French exchange sells at the rate of 3 cents a franc and Italian exchange sells at the rate of 4 cents a lira.

EXERCISES AND PROBLEMS

I

1. Why do we say that "all trade is barter"?
2. How can it be true that "the workers in a shoe factory in reality exchange a day's work for the day's work of laborers in other occupations"?

3. What are merchandise exports and imports? Name the nine most important items of our exports for 1922. Name the ten most important items of our imports in 1922.

4. With what part of the world was our trade the largest in 1924?

5. What are the two *visible* items of our trade abroad?

6. Name eight *invisible* items of our trade abroad. When is each an import and when is it an export?

7. In 1924 what percentage of our exports consisted of crude materials? Of crude foodstuffs? Of manufactured foodstuffs? Of semi-manufactured products? Of finished manufactured products?

8. Give the percentages for each of the items in #7 imported in 1924.

9. What is a "favorable" balance of trade? An "unfavorable" balance of trade? What is the true "balance" of trade?

10. What is the first statement of the Law of Comparative Costs? The restatement of the law?

11. Give Say's Law.

12. Give the Law of Reciprocity.

13. What is a bill of exchange? What is the only essential difference between a domestic and a foreign bill of exchange?

14. Why are foreign bills of exchange drawn in duplicate? If one is paid, how much is the other worth? Which is paid?

15. Give the Nash-Street transaction.

16. Give the Taylor-New transaction.

17. How are these accounts settled by the two banks?

18. What is a commercial letter of credit? What is its advantage?

19. What is "par of exchange"? How is it obtained? Give an example.

20. What is the "rate of exchange"? Give an example.

21. What are "gold points"? How are they obtained? Give an example.

22. In 1919-1924, what was the relation of the rate of exchange of the principal countries to par?

23. What is "dollar exchange"? "Sterling exchange"? French Exchange? German Exchange?

24. Why do French and Italian bills of exchange sell so far below par?

II

1. Was the rate of sterling exchange in New York affected by the World War? Explain.

2. Under what circumstances might the United States continue to import cheap cotton from China even if she could produce it more cheaply here?

3. "Wise government will never let a dollar in money go out of the country; for, as every dollar spent by an individual makes him so much poorer, so every dollar paid out by a country makes that country so much poorer." Criticize.

4. The movement of labor and capital between countries may be less free than between the sections of a given country. Illustrate from reference to actual conditions.

5. Is an "unfavorable balance" of trade to the United States to be regarded with anxiety?

6. How would a Boston leather merchant pay for an invoice of hides from Russia?

7. "If we buy rails from England, we get the rails but they get our money; if we buy rails at home, we get the rails, keep our money, and give employment for American labor." Criticize.

8. Why should the United States export gold when it has a favorable balance of trade?

9. "Hundreds of millions of dollars are taken away from the United States each year by tourists, by returning immigrants, and to pay interest and dividends on our securities held abroad. How can a nation, any more than an individual, grow rich if it keeps on paying out more money than it takes in?" Criticize.

10. The persistent strength in sterling during the year 1922 has accomplished a downward tendency in British prices as compared with an upward movement in this country. Explain why a decrease in British prices and an increase of American prices has caused a rise of sterling.

11. The German mark lost more than one half its value within three months during the fall of 1921. Consider the position of an American exporter who had outstanding accounts payable in marks.

12. A rich capitalist country can afford to import more than it exports. Why?

13. Final payments between countries are in commodities of commerce. Explain.

14. Hitherto we have always been a debtor nation. To-day we are a creditor nation. What is the difference? Account for the change.

15. In the spring months there is normally a smaller volume of exports from this country to Europe than in the fall months.

(a) What effect has this situation on the demand for bills of exchange in New York? (b) How is this effect shown on sterling exchange?

16. Perhaps the most obvious prerequisite to the establishment of a permanent export business is the development of a correspondingly large import trade. Discuss.

III

1. "International payments are made by credit instruments as long as they last. Gold flows only as a last resort." Explain.

2. Show that international trade is usually due to differences in the relative cost of producing the articles exchanged.

3. State the principles of comparative costs in international trade. Show that international trade will not arise in the case of two countries where the comparative costs of production are equal.

4. (a) What is the par of sterling exchange? (b) What determines in normal times how widely the rate of sterling exchange may fluctuate? (c) How was this fluctuation affected by the World War? (d) Give two reasons for this effect.

5. In September, 1920, the mark was quoted in New York at less than 1 cent, the franc at about 7 cents, the pound sterling at

\$3.74. What do these quotations mean? Show the effect on foreign trade.

6. Assume that sterling exchange is at par and English investors buy \$100,000,000 worth of American bonds. Explain the immediate effect of these purchases on the rate of sterling exchange in New York. Explain the effect on sterling exchange as interest on these bonds is paid.

7. "It is true that imports and exports eventually will tend to balance." Show that in the trade between two countries this statement is true.

8. "A country may profitably import a commodity which it can produce more cheaply at home." "A country should not import that which it can produce more cheaply at home." Explain clearly which of these statements is correct. Give a concrete example.

9. State whether or not each of the following will tend to increase or decrease imports of goods into the United States, giving in each case a reason for your answer: (a) foreign travel by Americans; (b) travel in America by foreigners; (c) payment of interest by Europe to the United States; (d) shipping American goods in foreign ships; (e) gold imports from Europe.

REFERENCES FOR FURTHER STUDY

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CHAPTER XVIII

THE TARIFF IN THE UNITED STATES

KINDS OF TARIFFS

Definition. — The word “tariff” has more than one application and more than one meaning. On going to a hotel, we can ask “What is your tariff?” By this we mean to ask the rates charged by the hotel. If the hotel is operated on the “American plan,” the answer may be “five dollars a day” or “seven dollars a day,” as the case may be. If the hotel is operated on the “European plan,” the answer may be “Our rooms are two dollars a day, and meals *à la carte*.” Both of these would be examples of a tariff. Primarily, then, a tariff is a list of charges for services.

However, the most important meaning of the word “tariff,” and the one that is significant to us in the present connection, is “a schedule of custom duties; the duty on a class of goods.” It is this latter meaning we have in mind in discussing in this chapter the subject of the tariff in the United States.

Classifications of tariffs. — There are two different classifications, as follows:

1. *Based on the nature of the rate.* — There are two types of duties levied on the importation of goods into a country.

First, *ad valorem duties*. These are based on the value of the commodities brought into the country. They are expressed in terms of percentage, for instance, a ten per

cent duty, a twenty per cent duty, a thirty per cent duty, and so on.

Second, *specific duties*. These are levied in terms of measurements, for instance, five cents a yard, ten cents a bushel, fifteen dollars a ton, two cents a pound, and so on.

2. *Based on the purpose of the tariff*. — Judged from the point of view of the purpose of a tariff, there are three different types.

First, *a revenue or free-trade tariff*. The sole purpose of this type of tariff is to bring in revenue to the government. Consequently, a revenue tariff may be levied on the importation of such commodities as *cannot* be produced within the country, for instance, England has long been known as the paramount example of a free-trade country, and yet for many years a large part of England's normal revenue has been derived from a tax on the importation of tea, coffee, sugar, and cocoa, none of which is produced in England.

Another type of revenue tariff consists of a tax on imported articles accompanied by an excise or internal tax of an equal amount on the same articles produced within the country.

Second, *a protective tariff*. The purpose of this type of tariff is to assist the domestic producer. Consequently, it must be levied on the importation of goods that can be produced within the country. To be truly protective, the rate must be high enough to really protect the domestic producer, that is, to enable him to charge a price higher than he could otherwise obtain in competition with the foreigner and still retain his market.

Third, *a revenue tariff with incidental protection*. In this type of tariff, the rates levied are not raised above the point at which the largest revenue is received. Such were, in reality, the tariffs in the United States between 1789 and 1812.

TARIFF HISTORY

From 1789 to 1815. — On the assembling of the first Congress of the United States in 1789, the most immediately urgent problem facing the government was how to secure revenue. The new constitution gave to Congress the power "to lay and collect taxes, duties, imposts and excises." Accordingly, the first law passed by the first Congress placed a duty of five per cent on goods imported into the country from abroad. In the preamble to that revenue measure it is stated that the purpose of the law is to raise revenue and to protect American industries. The rate was so low that little protection was afforded by the act; in 1804 an increase of five per cent was made to defray the cost of the Barbary War; and in 1812 the rates were doubled.

American fine cotton and linen first began to compete with those of Europe when Jefferson persuaded Congress, in 1807, to lay an embargo on foreign trade. From 1808 to 1815 there were practically no foreign goods in our markets. American ship-owners, whose ships were kept in American harbors by the embargo, began to put their money into mills, and factories became more important than shipping.

Peace in Europe would again admit the cheaper foreign goods. In 1815 American factory owners feared ruin because English exporters were flooding American markets with English-made goods; they petitioned Congress to pass a tariff which would protect their infant industries.

From 1815 to 1860. — In 1816 a new tariff was enacted designed to give special protection to woolen and cotton goods by imposing various rates, some as high as twenty-five per cent, on all goods imported into the United States. This was particularly gratifying to the textile industry of New England and to the iron manufacturing establishments

of Pennsylvania. Southerners, on the other hand, could not hope for help from the tariff, as they sold most of their crops abroad, and, too, the tariff increased the expense of raising cotton by increasing the price of the tools and clothing required by those who produced the crop. The cotton planters were firmly united against the protective tariff favored by portions of New England and Pennsylvania.

In 1824, Congress took up the subject of the tariff. Representatives from the middle states, from Kentucky and from the mill-owning sections of New England and the iron-manufacturing portions of Pennsylvania supported protection; those who opposed it came from the South and from the shipping interests of New England. After extended debate, in which Henry Clay of Kentucky championed protection and John C. Calhoun of South Carolina opposed it, Congress continued the rates on woolen and cotton cloth, and increased the rates on other goods, notably iron.

The struggle over protection during the next seven years tested the new government; the fight became so bitter, after Congress passed in 1828 a still higher tariff, that threats of disunion were made. This celebrated tariff is known as the "tariff of abominations." Of course, its opponents held it to be abominable, but it did not please the manufacturing interests either, for they found that it increased the price of some of the raw materials they used in manufacturing their finished product.

In 1832 Congress modified somewhat the law of 1828; but South Carolina was not satisfied. At the suggestion of Calhoun, South Carolina called a convention to act on the subject. This convention declared that the new tariff was unconstitutional, that Congress had no right to pass it, and

that consequently it was null and void. The convention ordered that, after March, 1833, the new law should not be enforced in the state of South Carolina. President Jackson was a fighter; he took up the challenge of the "sovereign" state of South Carolina. He ordered General Scott to propose plans to enforce the law; he also asked Congress to enact a "force bill" authorizing the President to collect the tariff in spite of any opposition.

The situation seemed to have come to an *impasse*. However, the two leaders, Clay and Calhoun, were brought together. Clay, the "great compromiser," proposed the "compromise tariff" of 1833, which was passed by Congress. This tariff left the duties as they were but provided that they should be reduced every two years until 1842, when they would be twenty per cent. That would change it from a protective to a revenue tariff.

It took the tariff out of politics until 1841. In that year the Whigs came into power; they were pledged to raise the tariff rates as soon as the compromise tariff had run its course. Under the leadership of Clay, a protectionist measure was passed by Congress, but it was vetoed by President Tyler. Later he agreed to a similar bill, which is known as the Whig Tariff of 1842.

Three years later the Democrats returned to power pledged to revise the tariff downwards. The Secretary of the Treasury, Robert J. Walker, made a careful investigation of business conditions; on the basis of the information secured by him Congress enacted the Walker Tariff of 1846. It was a revenue or free-trade tariff; it arranged the articles taxed in different schedules, each schedule carrying a different rate; it had a large free list of imports not taxed. The tariff of 1857 also was drawn on free-trade lines.

From 1861 to 1922.—In 1861, before the war began, the

Republicans passed a protective tariff known as the Morrill Act.

During the war, the rates were continually increased and everything possible was done to raise revenue. The textiles of New England, the iron manufactures of Pennsylvania, and even the farmers were granted protection; a duty was placed on the importation of raw wool; this resulted in a greatly increased production of wool; nearly every farmer began to keep a few sheep. Another change of importance was made by replacing many *ad valorem* duties by specific duties.

In 1884 the Democratic party nominated for the presidency Grover Cleveland. He made his campaign on civil service reform and tariff reform. He was elected; the House also was Democratic, but the Republicans held the Senate. In consequence, Cleveland's first term was four years of debate on the tariff in preparation for the campaign of 1888.

In 1890 the McKinley Tariff placed the rates on many imports even higher than the war tariffs had done. Apparently, this was going too far; popular opinion turned against it; the Democrats captured the lower House of Congress, and in 1892, they won both the presidency and Congress.

This was the opportunity of the Democrats to enact a tariff drawn on the lines they had been advocating for a half century. The Wilson Tariff Act of 1894 was the result. It was a second "tariff of abominations"; it pleased no one, as it was neither frankly free-trade nor protectionist, but full of favors to "special interests"; President Cleveland refused to sign the bill; and it became law without his signature. This law was very unpopular; many people believed that it was responsible for the panic of 1893; at

the next election McKinley was chosen president, pledged to revise the tariff upwards.

In 1897 the Dingley Tariff Act was enacted, carrying rates even higher than those of the McKinley Act. As prosperity followed the enactment of the Dingley Tariff, for a time it was popular; but the high prices of commodities led the Republican leaders themselves to propose a downward revision of the tariff rates.

In 1909 the Republicans passed the Payne-Aldrich Tariff, reducing many rates but not satisfying every one who wished for a thorough downward revision of rates. President Taft introduced a new idea as to the purpose of a protective tariff; McKinley had argued for the protection of infant industries; Taft's idea was that the tariff should equalize the cost of production in the United States and elsewhere in order to maintain the living conditions of American labor.

The Payne-Aldrich Tariff was not thoroughgoing enough to please a large section of the Republican party. Because of the secession of the Progressives from the Republican Party the presidential election was a three-cornered fight; Taft was renominated by the Republicans, ex-President Roosevelt by the Progressive Republicans, and Woodrow Wilson by the Democrats. The Democrats were successful, winning both presidency and Congress. In 1914 Congress passed and the President signed the Underwood-Simmons Tariff Act. It lowered many rates and enlarged the free-list. To offset any falling off in revenue that might result from the lower rates an income tax was imposed.

In 1922 the Fordney-McCumber Tariff was enacted by the Republicans, highly protective in both its purpose and in its rates. A serious attempt to take the tariff out of politics was made in 1916 by the appointment of a permanent tariff commission, the duty of which is to study the problem and

give Congress advice. The law of 1922 gives the President wide powers to alter rates in order to adjust the tariff to changing conditions; it is expected that he will be largely influenced by the recommendations of the commission.

THE TARIFF CONTROVERSY

Tariff question political as well as economic. — The foregoing sketch of the history of the tariff in the United States, from the days of Washington to the time of Harding, certainly establishes the fact that the tariff question in the United States is not purely an economic but largely a political question.

For over a century our governmental policy on this subject has been controlled by political rather than by economic considerations. When one party has been in power, the purpose of the tariff has been protective; when the other political party has been in power, the purpose of the tariff has been revenue or free-trade.

If we take a wider view and include in our survey the other countries of the world as well as our own, the political nature of the problem will be even more patent. The World War has emphasized the fact that strictly economic considerations do not always control governmental actions. Protective policies played no inconsiderable part in "setting the world by the ears" and in causing the war; and since the war, in self-defense and with one accord, all nations have made further applications of the principle of protection.

European states have all raised the tariff barriers; even free-trade Great Britain has fallen back from her policy of freedom of trade. Anti-dumping duties have been generally imposed in order to stop the flood of exports from countries with depreciated currencies. The economic advantages

that arise from following the principle of the geographical division of labor have been sacrificed to fostering the industries needed in time of war. The advocates of free trade or of protection, in maintaining their antagonistic positions, use arguments that seem to be economic in nature. Let us make a résumé of these arguments.

Arguments for protection. — The arguments for protection are at least seven in number.

First. *Protection promotes nationalism.* By nationalism is meant furthering the interests of the country as a whole; it is an adroit appeal to patriotism. Domestic trade, it is claimed, draws people together, while foreign trade tends to their separation.

It is pointed out that our Federal constitution provides that no state shall lay any imposts or duties on imports or exports. (Article I, Section 10, Clause 2.) This provides for unhampered freedom of trade within the States; its correlative, it is claimed, is a national tariff that will protect the whole nation against the world.

The soundness of this argument depends upon the judgment one passes upon the desirability of building up in the world great rival states each pursuing its own course.

Second. *Protection fosters infant industries.* *This enables us to develop our natural resources and to produce variety in our industrial pursuits.* Our early tariffs were defended on this ground; it is one of the arguments advanced by Alexander Hamilton; its validity, under the conditions existing in his time, is admitted by many economists. This same argument was also urged by William McKinley; its validity under the conditions in his time is doubtful. The "infants" had grown to mature manhood; why should they be treated as struggling weaklings when in many instances they had grown to gigantic proportions?

Third. *The military necessity argument.* No nation can permit itself to become wholly dependent on foreign nations for its supply of war equipment and munitions.

In modern times, however, what are the essentials of war? Certainly, much more than mere powder and guns. General industrial self-reliance is, in time of war, highly desirable. For example, when the World War came, the United States found its industries handicapped because it had become dependent upon Germany for dyestuffs. The creation of a domestic dye industry seemed to be in the interest of the entire nation. It is also highly desirable, even imperative, that in time of war industries should be so diversified that the necessities of life shall be available.

Fourth. *The home-market argument.* The home market is superior to the foreign market because it is surer. Foreign markets are likely to be closed by wars or by tariff changes.

Undoubtedly there is a measure of truth in this argument; but it can easily be overdone. All domestic producers cannot hope to sell their entire product to domestic consumers; we produce more cotton and more wheat than we can consume; the only outlet for our surplus of cotton and of wheat is the foreign market. By raising the general level of prices through the instrumentality of a protective tariff, injury is done to our growers of cotton and wheat without any compensating advantage.

Fifth. *Protection is a defense against "dumping."* By "dumping" is meant the temporary sale of products abroad at prices lower than those charged at home. These low prices are not expected to be permanent; they are made in order to secure the foreign market with the intention of later raising the prices.

If "dumping" were permanent, it might be considered advantageous inasmuch as it means low prices; but, as a

trick of the "wily foreigner," it is considered to be a form of unfair competition, and, as such, it is highly objectionable. Protection against it is in the interest of the public. However, the anti-dumping argument was formerly used against the protective tariff, which, it was asserted, allowed our protected industries to sell their surplus output abroad at prices much less than they charged domestic consumers. It seems to make a difference whose pig is stuck, or whose ox is gored!

Sixth. *Protection gives us a diversified industry.* (1) Diversification of industry will render us to a large extent economically self-sufficient; (2) it will permit us to profit as much as possible from geographical specialization through the development of our natural resources; (3) we shall thus be enabled to utilize all of the talents of our varied population; (4) we can build up large accumulations of capital by fostering those industries which make that possible, especially by extending the corporate form of business enterprise, which, it is held, is the greatest agency yet devised for the accumulation of capital; (5) and, finally, diversification of industry will increase wages by stimulating the demand for labor.

Economists do not generally indorse this wages argument; on the contrary, it is maintained by them that real wages cannot be permanently enhanced by a protective tariff.

Seventh. *The protective tariff should be adopted in order to equalize costs of production here and abroad.* President Taft argued for the protective tariff on these lines; and this has been accepted by protectionists as the scientific basis of protection.

The Tariff Act of 1922 accepts it in the statement that the tariff should "equalize the difference in costs of production in the United States and the principal competing country."

Further, in the same statute this formula has been accepted as "the policy of the Congress by this Act intended." This would therefore seem to be our present official policy.

Let us examine it, for a moment, from the standpoint of Economics. Professor Ely states that "the proposal has many attractive features. (1) It recognizes that some taxation of imports is necessary, but (2) abandons the Chinese-wall interpretation of protection and (3) aims to preserve competition between domestic and foreign producers."

It means that our permanent policy shall be continual readjustment of protective duties as costs of production change here and abroad. Many economic proposals are theoretically attractive but, practically, they will not "work." Economists are inclined to believe that this is one of those theoretically admirable but practically unworkable proposals.

Here are some of the practical difficulties.

1. *How can you figure out the cost of a joint-product or of a by-product?* Neither accountants nor economists have yet been able to do it. Professor Ely flatly admits that this problem is insoluble.

2. The task of ascertaining costs is complicated by the provoking fact that *costs vary from place to place and from producer to producer*. The average cost in some commodities varies from State to State from thirty to fifty per cent. Suppose the tariff is levied on a comparison of average costs in the United States with average costs abroad, who will be the first to object? All producers in the United States whose costs are above the average.

3. *How can the cost abroad be obtained?* The answer to that question has been a "poser." It cannot be done. The result will be pure guesswork by the Tariff Commission. What is there scientific in that? Previous experience with

the Interstate Commerce Commission in trying to place a physical valuation on the railroads and of the Treasury Department in determining investments of capital so as to ascertain a fair excess profit tax is not at all encouraging to the effort of the Tariff Commission in trying to ascertain costs of production abroad.

4. *Conclusion.* — Aside from further drawbacks, those already enumerated are sufficient to make it plain that, in practice, the scientific basis of protection, viewed from an economic point of view, seems at least to be somewhat uncertain.

Arguments for free trade. — As in every debate there are “two sides to the question” so in this discussion we must listen to “the other side.”

The free-traders also advance at least seven arguments which we shall endeavor to state clearly.

First. *Free-trade is in harmony with the Law of Comparative Costs.* This is the case of the free-traders, in a nutshell; they begin with and constantly come back to this idea. So long as there are relative differences in the cost of cheaply producing portable articles in the various countries of the world, so long will there be international trade in those articles.

Protective tariffs, it is claimed, are artificial barriers erected to force trade into unnatural channels. Protective tariffs act, then, merely to divert capital and labor from intrinsically more productive to intrinsically less productive industries.

In our explanation of the Law of Comparative Costs, page 372, we made use, as an illustration, of the lawyer and his stenographer; following up that illustration, the free-trader contends that protection aims to induce the lawyer to write his own letters, on the grounds that lawyers are more

intelligent than stenographers and so they can do the stenographers' work more efficiently than the stenographers.

Temperate advocates of free-trade do not contend that the law of comparative costs is so inflexible as to prove the desirability of free-trade under all circumstances, but, they think, it does establish their contention that free-trade should be the general rule and any departure from it should be the exception.

These exceptions, they say, may be defensible and they may be worth what they cost in the enormous bounties protective tariffs give to certain industries; but those who unconsciously pay these bounties, collected in the enhanced prices of the commodities they consume, should realize what protection costs them.

It is further contended that after more than a century of industrial development, labor and capital in this country should be allowed freedom to choose for themselves those enterprises in which they can enjoy the largest natural reward, and they should not be artificially forced into enterprises that will, legally but immorally, withdraw huge subsidies from the pockets of the great body of consumers.

This argument is the foundation of the case of free-trade.

Second. *Protection is not necessary in order to diversify industry in a country with such varied natural resources as the United States.* Free-trade within our extensive borders has not resulted in confining manufacturing industries to their original habitats in New England and Pennsylvania, although the "infant industry" argument of the protectionists would seem to require it.

The South is at least a lively competitor of New England in the textile industries; and it is in the South and the West that manufacturing has been progressing most rapidly in

recent years. Internal free-trade has not prevented the diversification of American industry. If that be so, the free-traders say, why fear free-trade with all the world?

Third. *The home-market argument is essentially weak.* Granted that the home market is surer than the foreign market for the reason that it cannot be destroyed by hostile tariffs or international complications.

That might be decisive if in all lines of industry we produced only as much as Americans could consume ; but such is not the case. In many lines our home products seek foreign markets to dispose of surplus production that Americans cannot consume. Any nation that sells abroad must buy abroad ; if we raise high tariff barriers against foreign goods, we injure ourselves alone.

As consumers we pay higher prices for our goods, prices enhanced by the tariff. But that is not all. The prices of domestic goods which compete with the foreign imported goods are also increased ; this is the explanation of the statement that " the Fordney Tariff Act is expected to yield \$400,000,000 revenue, yet it will cost the American people \$4,000,000,000 annually."

Fourth. *The protectionist appeal to the wage-earners is two-faced.* " High tariffs make high wages," say the advocates of protection. If that be so, the free-traders rejoin. " how do you account for the fact that wages in protected Germany are lower than in free-trade England? "

There seems also to be another inconsistency in the wage argument. France, for example, demands high tariffs in order to protect her low-paid workmen against the greater skill and efficiency of America's highly paid workmen. *That's that.*

But, on the other hand, the United States, it seems, must have protection in order to shield her highly paid workers

against the competition of "the pauper labor of Europe."
How's that?

Which, if either, of these two contradictory statements is true? Highly paid American labor need not fear the competition of poorly paid European labor so long as the American laborers are more productive than the European laborers. Labor competes with labor, not with commodities. The Labor Unions are logical in demanding restriction of immigration.

Fifth. *For raising revenue, a protective tariff is a poor tax.* It is uncertain and perversely variable. In 1913 custom receipts amounted to 44 per cent of the total ordinary receipts of the government, but in 1918, when we were in the war and needed revenue, the custom duties fell off, and amounted to less than five per cent of the total ordinary receipts.

It is further claimed by the free-traders that to the extent that a tariff does not prevent importation it affords no protection; and in so far as it does protect, it yields no revenue to the government.

In practically all cases, the "*consumer pays the tax*," not literally, but in reality; the burden of the tariff tax is shifted to his shoulders in the enhanced price of the imported article. By raising the price, a protective tariff constitutes a tax upon one class, — the consumers, — for the benefit of another class, — the producers of protected articles.

To illustrate how this works out, the free-traders point to the tariff on sugar imposed by the Payne-Aldrich Tariff of 1909; this tariff resulted in an annual tax on American consumers of 100 millions. But the government received only 52 millions of that amount, the balance of 48 millions found its way, through higher prices paid for sugar, into the pockets of the sugar producers of Hawaii, Porto Rico, and Cuba.

Sixth. *Protection is ethically unsound.* It renders the prosperity of influential classes dependent upon government bounty and encourages them to exert demoralizing pressure upon Federal legislation.

This does not necessarily imply direct bribery of legislators, but a Congressman or a Senator from a state in which powerful interests are financially dependent on tariff legislation is brought under every kind of pressure, social and political if not financial, to prefer the interests of his constituents over that of the public at large.

Professor Ely's conclusion is that "the impossibility of getting a 'scientific tariff' under the political conditions that protection creates is possibly one of the strongest arguments against protection."

Seventh. *Protection fosters monopoly.* Protectionists take it for granted that, when foreign competition has been shut off, home producers will continue to compete.

Extreme free-traders claim that the "tariff is the mother of trusts"; that combination rather than competition rules. Our study in Chapter IX of large-scale production, combination, and monopoly has indicated that there are abundant reasons aside from the tariff for the growth of combinations, trusts, etc.

This much, however, is true; protective tariffs have often played into the hands of the trusts whereas if foreign goods had been allowed easy entry into the country, the consumers would have had a powerful ally in their battle against the trusts.

What of the future? — We have endeavored to make an unprejudiced statement of the arguments both for protection and for free-trade. Under certain circumstances there is a measure of validity in all of them.

In our early days we were compelled to become a protec-

tionist country; the "infant industry" argument had a very real validity when our industries were being established; without the assistance of a protective tariff many of these struggling enterprises could not have survived foreign competition.

For the immediate future the outlook is that protection is here to stay. Our own country and its most important business rivals have adopted the principle of protection as a permanent policy.

The most recent development in connection with tariffs is the tendency to make them flexible or elastic by giving administrative bodies power to change duties as new conditions arise.

Both Great Britain and France have taken steps in this direction. In Great Britain, the Board of Trade and committees appointed by it are given wide powers to impose protective duties under the Safeguarding of Industries Act of 1921. In France, from the end of the World War until the close of 1922, an Inter-ministerial Commission adapted duties to meet fluctuations in international exchange due to depreciation of the currency. And under our Tariff Act of 1922, the President, on the advice of the Tariff Commission, is given wide powers to change duties so as to equalize costs of production here and abroad. It will be well for us to watch the workings of this new feature of our tariff.

EXERCISES AND PROBLEMS

1. Define tariff.
2. Define and give illustrations of *ad valorem* duties; of specific duties.
3. What is a revenue or free-trade tariff? A protective tariff? A revenue tariff with incidental protection? Give an example of each.

4. Why does Congress enact tariff laws? Why does not your State legislature enact tariff laws?
5. Describe in detail the first law passed by the first Congress.
6. What was the effect on our industry of Jefferson's Embargo of 1807?
7. What kind of a tariff was passed in 1816? Did the conditions justify it?
8. Describe the steps leading to the "tariff of abominations" of 1828. What were the results? How was trouble averted?
9. What kind of a tariff was passed in 1846?
10. What were the important features of the tariff from the Civil War to 1884?
11. What kind of a tariff was the Wilson Tariff of 1892? Why did Cleveland refuse to sign it? How could it become law without his signature?
12. What kind of a tariff was enacted in 1897? What were its effects?
13. What new idea did President Taft introduce as the reason for a protective tariff?
14. What new powers in connection with the tariff are conferred upon the President by the law of 1922?
15. Is the problem a purely economic problem? Give reasons for your answer.
16. What effect did the World War have on the tariffs of many countries?
17. Give and discuss each of the seven arguments for protection.
18. Give and discuss each of the seven arguments for free-trade.
19. What is the "scientific" basis for protection? What is your opinion of it?

II

1. "The tariff never made a trust and free-trade never will destroy one." Discuss.
2. Does a protective tariff on manufactures help the home producer of food products? If so, how?

3. What factors lead to the export of cotton from the United States, cotton goods from England, toys from Germany, tea from China, agricultural implements from the United States?

4. Should the United States adopt free-trade, would she be threatened with continued underselling in all goods by Oriental producers?

5. "When we buy manufactured goods abroad, we get the goods and the foreigner gets the money. When we buy manufactured goods at home, we get both the goods and the money." Criticize.

6. "At the last session of the State legislature, a law was passed making it obligatory to use Minnesota stone in Minnesota public buildings. The men who are engaged in the granite industry regard this as a just law." Do you? Why or why not?

III

1. "The principle of protection is to build up our home industries by manufacturing our own products. This gives our people employment, keeps the money in the country, and makes this country independent and self-reliant." Point out the strength and weakness of these arguments.

2. (a) What are the reasons for the growing demand for a reduction of the tariff in the United States?

(b) What is the infant industry argument? Is it economically sound in your opinion? Does it apply to conditions in the United States to-day?

3. The Constitution of the United States has forbidden the levying of export duties and has permitted the levying of import duties. Give economic reasons in each case.

4. When the import duties are made protective, what effect does this have on the prices paid for commodities protected, by the citizens of the country protected?

5. What is meant by diversified industries? How does the diversification of the industries of a nation affect the aggregate wealth?

6. What are the arguments for the reduction in duties on such articles as coal, hides, and lumber? Would the arguments apply in the case of (a) gloves and toys, (b) diamonds, Brussels lace, and works of art? Explain in each case.

7. "The tariff cannot help but be commercially hurtful to the country as an international creditor." (a) Explain international creditor. (b) Give three reasons why the above statement is or is not economically sound at the present time.

8. The farmer's prices in the last analysis are set by foreign demand and foreign ability to pay for his products. Why?

9. A former member of the House of Representatives urged a tariff under which the chamoisette glove-makers might have a chance to resuscitate their product. The manufacture of these gloves in the United States began as a war-time industry and grew rapidly.

(a) What argument is here implied? Explain it and any objections to the argument.

10. The American valuation scheme continues to arouse active disapproval of practical business men. (a) What is the American valuation scheme? (b) Why did it arouse the active disapproval of practical business men?

11. Heretofore we have generally conducted our tariff programs on the basis of reasonable protection of home industry; but we are uncertain now as to our policy in the conflicting situation arising from the desire to stimulate and protect home industry and at the same time to sell abroad and make it possible for our debts to be paid. Explain the "conflicting situation."

12. The heavy German exports that are necessary for the reparation payments are bound to be a disturbing factor in trade, wherever they are sent. Why?

13. The present tariff legislation injures the farmer's selling markets and makes his buying markets less advantageous than they otherwise would be. Explain.

14. Perhaps the most obvious prerequisite to the establishment of a permanent export business is the development of a correspondingly large import trade. Discuss.

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PART V

DEPARTMENT OF DISTRIBUTION

CHAPTER XIX

THE NATURE AND MEANING OF DISTRIBUTION

INTRODUCTION

Definition of distribution. — It is in the department of Distribution that you will find the greatest divergence of opinion and the most violent controversies. While there is not unanimity of opinion in the ground already covered, such differences of opinion as exist in the departments of consumption, production, or exchange are “academic” compared with those in the department of distribution.

Up to this point, a student of Economics may have politely given attention to the theorizing of the professors; indeed, he may have been mildly interested at times, but he has found nothing to make him excited.

Now it will be different. We shall study topics which touch normal human beings in a most sensitive point, their pocketbooks. Each of us is prone to ask, more or less savagely, *why is my share of the good things of life so small?*

Aye, there’s the rub. Why is it?

The author declines to answer a question so personal. An honest and complete reply to that poignant inquiry, even if the author were capable of answering it, is far beyond the range of a school text book on Economics; let us recall right here that in Economics our point of view is not personal but social. We are not trying to find out why Thomas

Jones has an income of \$100,000 while Peter Smith's income is only \$1,250. Rather, our inquiry is why is the community classified into different income groups, some of which are receiving much and others receiving little?

The word "distribution" is itself misleading and confusing; "sharing" or "apportioning" have been suggested, but the term "distribution" has become so firmly established that it is hopeless to try to replace it by one better. It is misleading and confusing because business men speak of the distribution of their goods, meaning the process of salesmanship and transportation. That is perfectly legitimate, but it is not what we mean by it. In Economics, distribution has a technical, restricted meaning, which must be grasped, otherwise the entire subject "will be all Greek" to you; and comparatively few high school pupils to-day study Greek.

What is it that is "distributed" among the five factors of production? Surely the products themselves are not directly distributed to those who produce them. Workers in shoe factories do not receive shoes in payment for their services; nor is the landlord, the capitalist, or the government paid in shoes.

It is the market value of the product that is "distributed" and not the product.

Of course, the wage-earners in the shoe factory, for example, after they have received their money wages, spend the money for goods and services they need to satisfy their wants.

You will please endeavor first to understand, and then to learn the definition of distribution:

Distribution is the process whereby, out of the value of the product, each of the five factors of production is rewarded for its contribution in production.

Clash of interests. — Inasmuch as each of the five factors of production, the organization, land, labor, capital goods, and government, receives its share from the value of the product which results from their coöperation in production, it must be evident that, during any given period, the more any one factor receives, the less will remain for the others; hence there arise bitterness and misunderstanding.

To make the situation concrete, let us return, by way of illustration, to the single entrepreneur (Figure 26, page 104). He is a grocer owning the land and building where he does business; he personally waits on his customers, and he employs a boy, a clerk, a bookkeeper, and a delivery man.

In a certain month he finds that his income and his expenses have been as follows:

INCOME		EXPENSES	
Gross sales	\$10,500	Cost of goods	\$ 7,700
		Wages	400
		Interest on loan at the bank	50
		Insurance	50
		Balance	2,300
	<u>\$10,500</u>		<u>\$10,500</u>

In this instance the problem of distribution consists of the division of the total "value of the product," \$10,500, among the factors that coöperate in the enterprise. After he has paid all of his bills, he has left \$2,300, which he might probably but improperly call his profit. Whatever he may call it, it belongs to him as the result of the month's business.

The two items to which our attention is now directed are "wages \$400" and "interest on loan at the bank \$50." If he had been obliged to pay \$500 in wages and \$100 in interest on his loan at the bank, his own share would have been reduced from \$2,300 to \$2,150.

It is because of this fact that the more one of the factors of production receives as its share the less there will be to be divided among the other factors. This fundamental fact accounts for the bitterness that characterizes the industrial disputes of our day.

Let us now carry our illustration a little further. Our grocer, we shall suppose, does not own the land or the building but he leases them from the owner; and further, he pays in his taxes this month, \$250; his investment is \$25,000, which is the capitalization of the concern. As he knows he could have loaned that sum to others at 6% interest, if he had so chosen, he rightly thinks that he should credit some of his "profit" to "imputed interest" on his invested capital. And he credits \$300 to "wages of management," the amount he could have received if he had worked for some one else rather than for himself. With these changes his income and expense account for the month will be as follows:

INCOME		EXPENSE	
Gross sales	\$10,500	Cost of goods	\$ 7,700
		Rent	250
		Wages	400
		Interest on loan at bank .	50
		Insurance	50
		Taxes	250
		"Imputed interest" on capital invested	125
		"Wages of management" .	300
		Balance	1,375
	<u>\$10,500</u>		<u>\$10,500</u>

He will now consider that his "profit" is \$1,375.

The largest item on the expense side is "cost of goods \$7,700." It is plain that he cannot treat that as "profit" and proceed to spend it to satisfy his personal wants; that would "impair his capital," and, if persisted in, it would

lead to bankruptcy. The \$7,700 is what is called *replacement fund*; it enables him to remain in business and to purchase more goods.

In a manufacturing business, or in any other, in which fixed capital goods play an important part, the replacement fund, as we have seen,¹ provides for the normal wear and tear coincident with the daily use of the machinery, and repairs to the building. Merely because a corporation is large does not alter the principle; it is still true that out of its gross income a corporation meets its expenses and maintains its replacement fund.

If, after these charges have been met, there is anything left, it, too, is "profit" and belongs to the owners of the corporation, that is, to the stockholders, although they may not individually receive it until the board of directors vote that it shall be paid to them in dividends.

Some of the large corporations make very interesting statements of the disposal they make of the huge sums that come into their hands from the sale of their products. For example, the United States Steel Corporation publishes statistics of what it has done with the colossal sums it has collected for its products since its incorporation.

The table at the top of the following page shows the division of Steel's dollar, by percentages, in the four six-year periods from 1902 to 1925, inclusive, and for 1925.

You will note in the items of the table that "wages" have increased from 30.47 cents in the first period to 45.15 cents in 1925; "general expense, raw material, freights, etc." remains comparatively fixed; "taxes" are more than five times as great in the last as in the first period; "depreciation" is a little less; the great decreases are in "bond interest," which fell from 7.52 cents to 2.57 cents, and

¹Page 173.

TABLE 48¹

	1925, CENTS	1920-25, CENTS	1914-19, CENTS	1908-13, CENTS	1902-07, CENTS
Wages	45.15	44.71	33.34	35.54	30.47
General	32.76	34.36	32.90	35.46	37.92
Taxes	5.03	5.16	12.12	1.98	0.85
Depreciation	5.54	4.84	4.14	5.22	5.72
Interest	2.57	2.85	3.36	7.55	7.52
Net for stock	8.95	8.07	14.14	14.25	17.52

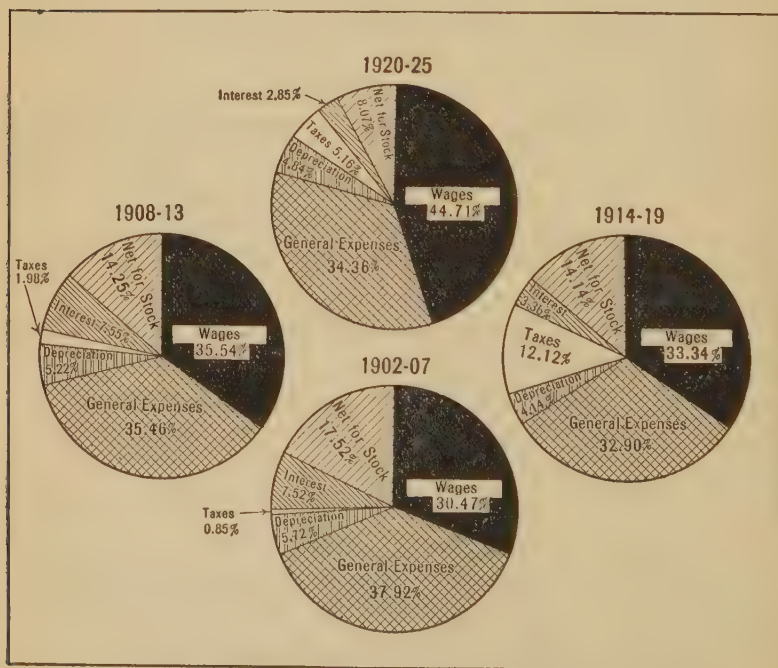
¹ The Wall Street Journal.

FIGURE 98. WHERE UNITED STATES STEEL'S DOLLAR GOES

"net for stock," which is only about one half of its former amount, the figures being 17.52 cents for the first period and 8.95 cents for 1925.

It should, then, be clear that if some production groups get more, other groups must get less. This accounts for the virulence of feeling that often characterizes discussions of these topics. The "masses" think the "classes" get too much; the "classes" think that the "masses" are unreasonable. Each group, like each individual, fully appreciates the importance of its contribution to production, but in the present complicated organization of industry, it is very easy to overlook and undervalue the contributions made by others.

The more there is to be divided the more each group can hope to get. Fundamentally, the interests of all groups are one.

PRODUCTION AND DISTRIBUTION

The place of the entrepreneur in both production and distribution. — To refresh your memory, it will be well at this juncture to re-read Chapter IV on the organization of industry. In that chapter you will find a detailed statement

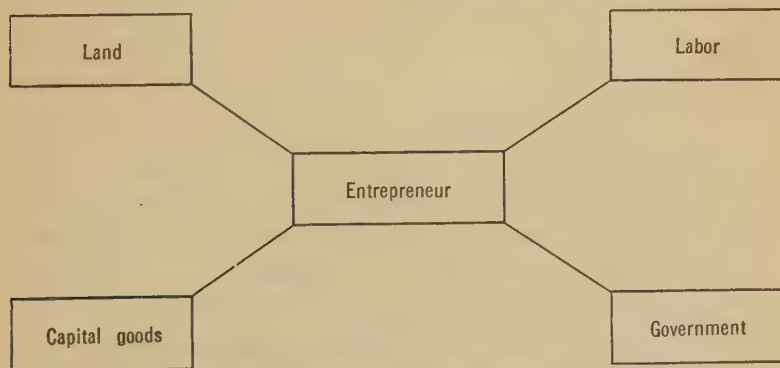


FIGURE 99. THE ENTREPRENEUR — THE CENTER OF PRODUCTION

of what the entrepreneur means in the productive industries of the world to-day. Figure 99, page 425, shows the entrepreneur as the center of production.

The services performed by the entrepreneur in production are many, varied, and important. He secures the land upon which the buildings are erected, assembles the capital goods, "hires and fires" the employees, markets the goods, directs the affairs of the enterprise, decides important questions of policy, deals with the government, procuring licenses and permits, and, finally, he assumes the financial risks of the undertaking.

Not only is the entrepreneur at the center of production; he is also at the center of distribution.

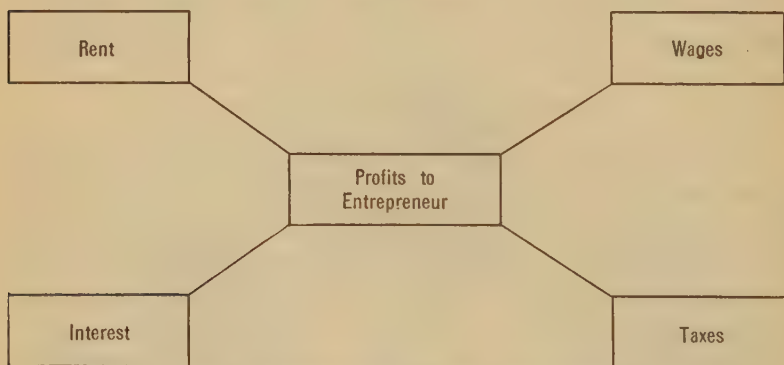


FIGURE 100. THE ENTREPRENEUR—THE CENTER OF DISTRIBUTION

As the central figure in distribution he pays rent to the owner of land, or natural resources, wages to the laborers, interest to the capitalist, and taxes to the government. The only source from which he can draw in order to make these payments is the gross income accruing to him from the sale of the product. If, after making these payments, there is anything left, it belongs to him and constitutes his profits.

If there is nothing left, he is "out and injured." As the "left-overs" belong to him, he is called the *residual claimant* on the value of the product.

The relation of production and distribution. — Just as a coin has two sides — "heads" and "tails" — and together they are the coin, so, in reality, *production and distribution are two sides of the same thing*. For example, on Saturday night, John McGuire carries home a pay envelope, containing \$43.76 in bills and change, which he cheerfully gives to Mary, his wife. To John McGuire and Mary, his wife, that money is their income for the week; but to his employer, the New York Central Railroad Company, it is part of the cost of conducting its business. One and the same payment is income or cost of production, depending on the point of view.

The relationship existing between production and distribution is exhibited in the following chart and diagrams:

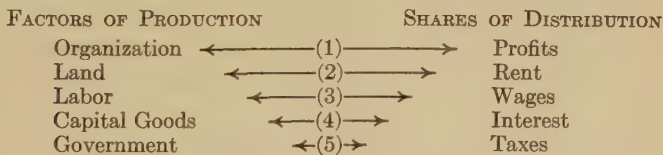


FIGURE 101. CHART OF PRODUCTION AND DISTRIBUTION

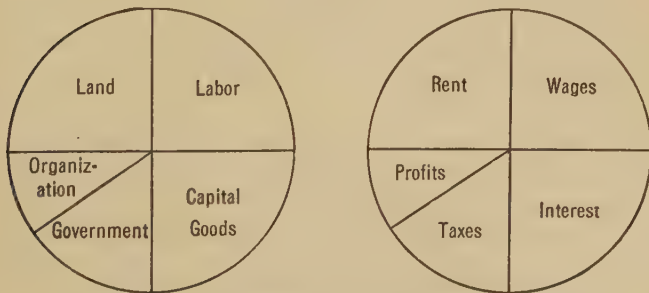


FIGURE 102. PRODUCTION AND DISTRIBUTION

GENERALLY ACCEPTED THEORY OF DISTRIBUTION

The marginal productivity theory.¹ — The problem of distribution requires a two-fold analysis, (A) one of demand, and (B) one of supply. We have seen that the entrepreneur's cost of production consists of the rent, wages, interest, and taxes he must pay ; to him rent, wages, interest, and taxes constitute the price he must pay for the co-operation of the other factors of production ; while to the recipients thereof rent, wages, interest, and taxes are income.

As rent, wages, interest, and taxes are the prices of the agents of production, we shall ascertain how these prices are fixed by studying (A) the demand for and (B) the supply of the factors of production.

A. *The demand for the factors of production.*

1. In studying the cultivation of land we learned that up to a certain point, increasing applications of other productive factors to land yield increasing proportionate returns, but after the point of diminishing returns, land will yield less than proportionate returns in product. (See page 133.)

This is not due to exhaustion of the fertility of the soil but rather to the increasing proportions in which other agents of production are combined with land.

2. On the discovery of this principle, Economists supposed that the law of diminishing returns applied exclusively to land, but they now recognize that it applies to almost any possible combination of the productive agents in any kind of productive enterprise. It was in consequence of this discovery that we re-stated the law of diminishing returns in the following words : *If, of the three factors of production — land, labor, and capital goods — any one remain fixed and the others be increased, after a certain point has been reached in the cultivation of land, or the exploitation of a mine, although*

¹ For a tabular view, see Addenda, page 616.

the aggregate return is larger, the proportionate return is smaller.

3. The principle has an even larger application. In any industry, whether it be mining, agriculture, manufactures, transportation, merchandising, or any other, the same law holds good. Professor Bye¹ calls it *the law of diminishing productivity*, and states it as follows: "*In any productive operation, in which a number of productive agents are employed, increasing any one of those agents relative to the others will, after a certain point has been reached, yield less than proportionate increase in product.*"

Other Economists call this law *the law of variable proportions* because the variations in the amount of product results from varying the proportions in which the agents of production are combined with each other.

This principle makes it clear that maximum productivity depends upon securing the most effective possible combination of the available productive factors. This fact has significance in determining the prices paid the various agents of production. (See p. 137.)

4. This principle of diminishing productivity leads to the idea of a *marginal product*, which Professor Bye defines as "*that amount of product the obtaining of which is dependent upon the use in production of a single unit of the agent in question.*" By a "single unit" is not meant one unit of that agent employed *alone*, but in combination with other units of the same agent.

The marginal product can be found by employing one unit more or less of a given agent. The illustration given by Professor Bye is that of a farmer, with one hundred acres of land and a certain amount of seed, fertilizer, tools, etc. Suppose that with four laborers he can produce 2,000

¹ Bye, R. T., *Principles of Economics*, Chapter XVII, Knopf, 1924.

bushels of wheat, and by the employment of a fifth laborer he can increase his crop to 2,500 bushels. The extra 500 bushels depends on the employment of a single laborer; hence 500 bushels is the marginal product of the labor employed in the enterprise.

If six laborers, instead of five, are hired, the crop will be larger than before but because of the law of diminishing productivity, not proportionately larger. The total might be 2,800 bushels, so that now the marginal product of the labor force employed is only 300 bushels because if any one of the six laborers is dispensed with, the remaining five can produce only 2,500 bushels, which is 300 less than when six are employed.

Since the law of diminishing productivity applies to all of the agents of production, the marginal product of any one of them can be found in a similar way.

5. Demand for the productive agents is based upon their marginal productivity.

How much would the producers of bread be willing to pay for the labor employed in producing it? The demand for bread is such that the more of it that is offered for sale the less will be the price that can be obtained for it; and the more labor is employed in producing bread in proportion to other agents of production, the greater the quantity of bread that can be produced; but the increase in the quantity of bread will not always be proportionate to the increased labor.

So long as the increased bread obtained by using extra workers will bring a price that is more than must be paid for the labor, it will be profitable to hire additional workers and increase the output, that is, so long as the value of the marginal product of the laborers exceed their wages, there will be a profit.

This stimulates employers to hire more labor ; but as they employ more labor two things happen :

- a. The increased production of bread brings its price down.
- b. The supply of labor is limited and more workers can be had only in competition with other employers ; additional labor can only be attracted into bread-production by offering higher and higher wages to get them. This will go on until the falling price of bread meets the rising rate of wages ; at this point the value of the marginal product of labor in bread-production exactly equals its wages. Hence, we can say that the wages of labor will tend to equal the value of their marginal product.

6. This principle applies to the other agents of production. It applies not only to labor as a whole and to capital goods as a whole, but to each kind of the several agents of production. Every grade of skilled or unskilled labor, of land, and of capital goods has its own price ; each is established by the same market process ; they are all subject to the law of variable proportions ; the demand for the various agents of production used in the making of bread is derived from the demand for the bread in proportion to their respective marginal product ; and the combined values of these marginal products tend to equal the total value of the bread.

7. But each agent of production is actually employed in the production of many things, not bread alone. Its price is determined by the combined demand for it in all uses.

The transition at this point is made through the principle of " opportunity cost," first pointed out by Professor John Bates Clark, according to which the producers of bread must compete with the producers of all other commodities for the supply of the agents of production, and they must pay the same price that competitors are willing to pay.

8. So, finally, we arrive at the conclusion that *the price of any agent of production tends to equal the value of the marginal product of the entire supply of that agent.*

B. *The supply of the factors of production.*

1. We have observed that *the marginal product of an agent of production varies with its quantity*; hence it is necessary to proceed to an analysis of the factors determining the supply of the various agents of production.

2. *If an agent of production is very abundant, its marginal productivity and its value will be small*; the income of those who contribute it will be correspondingly small. *If an agent is very scarce, its marginal productivity and its value will be high*; the income derived from it will be correspondingly great.

3. Land is practically fixed in quantity so that the income from land is determined by the demand for it in the same way as the values of commodities in case of fixed supply.

4. The various forms of capital goods can be produced by man, but their use in production requires saving, waiting, and risk, so that their supply is not fixed.

5. The supply of labor is governed —

a. By the size of the population.

b. The proportion of it gainfully occupied.

c. The number of persons capable of doing the various kinds of work.

d. The willingness of people to work.

e. The desirability or unattractiveness of the work.

6. The supply of business enterprisers depends on —

a. The percentage of managing ability in the population and

b. Their willingness to assume risks.

7. Each person who contributes his land, labor, or capital goods to production is rewarded in accordance with the

productive importance of that land, labor, or capital goods.

a. If land is scarce, land is the thing which sets limits to production; from the standpoint of production it is more important than other agents.

b. If savings are small in quantity, it is scarcity of capital goods that is the limiting factor and consequently capital goods are more important.

c. If labor, as a whole, or any particular labor, is scarce, that is the limiting factor, and the most important to production.

8. This method of paying for the productive agents effects a rough economy in their use. By setting a high price on the scarce factor and a low price on the plentiful factors, it induces enterprisers to use the scarce agent as sparingly as possible, and to substitute a cheaper for a more expensive one if possible.

EXERCISES AND PROBLEMS

1. Define distribution.
2. What is the fundamental reason for the "clash of interests" in Distribution?
3. What is the "replacement fund"? What is its practical function?
4. Which of the factors of production received the largest share of "Steel's dollar"? the smallest?
5. How can "more production" help to cure our economic ills?
6. Which of the five departments of Economics is most fundamental? Why?
7. What is the relation of production to distribution?
8. What is the relation of the entrepreneur to production to distribution?
9. Are rent, wages, and interest income or costs of production? Explain.

10. "Rent, wages, and interest are prices." Explain.
11. Explain to the class the marginal productivity theory of distribution.

II

1. A has an income of \$20,000. It consists of :

(a) Salary for his work as cashier of a bank	\$6,000
(b) Interest on some 5% bonds of a manufacturing company in his town	3,000
(c) Dividends on stock in the same company paying 8% on their par value	10,000
(d) Rent of a farm he owns	1,000
(A keeps in repair the house and barns on his farm)	

Analyze A's income, showing what part should be called wages, what part rent, what part interest, and what part profits.

2. The most unfortunate feature of the labor problem in this country is the question of curtailed output. Explain why this is so.

III

1. Mention the five shares into which the economic product is distributed and justify each share.

2. Define the three chief shares into which the net money income derived from a country's industries is divided.

3. "Distribution has long since become the most important of economic problems." Give arguments for or against this statement.

4. Show, with concrete illustrations, which economic problem is being more satisfactorily solved, production or distribution.

5. "The problem of distribution must be solved before permanent peace can be attained." What is this problem of distribution? Explain one proposed solution. Give two arguments for or two arguments against it.

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CHAPTER XX

RENT

INTRODUCTION

Definition of rent. — Here is another instance, frequent in Economics, in which a term in common use has a limited, special, and technical meaning. You may rent an automobile, a dress suit, a farm, a residence, or a railroad. From the point of view of Economics, it would be preferable to say that you "hire" an automobile or a dress suit, you "rent" a residence or a farm, and that one corporation "leases" a railroad to another. In the case of the farm and the residence, too, as we shall shortly see, the Economist makes a distinction between economic rent on the one hand and commercial or contract rent on the other. To help you understand the exact meaning attached by Economists to the term "rent" you will please carefully re-read Chapter V on Land as a Factor of Production.

Land includes all natural resources and productive power over which possession of the earth's surface gives control. The income enjoyed by the owner of such natural resources and productive power the Economist calls *Rent*.

Let us designate the monthly payment made by your father to his landlord for the use of the apartment or the house in which you live or for the store in which he carries on his business, by the term *commercial rent* or *contract rent*.

We shall use the term *economic rent* or *differential rent* to designate the return to the owner of a natural agent for its

use in production. Commercial rent includes economic rent, but it also includes more. The house in which you live or the store in which your father carries on business is not "a natural resource" nor "a productive power." The former is to your father a consumer's good and the latter is an example of capital goods. The owner of capital goods enjoys an income which we call *interest*.

Economic Rent = Commercial Rent — Interest.

CHARACTERISTICS OF ECONOMIC RENT

Economic rent is a differential gain. — The economic rent of agricultural land is due to *differences* in the fertility of the soil and accessibility to markets; in cities economic rent is due to *differences* in location; in mines, economic rent is due to *the differences* in the cost of extracting the mineral or metal because of shallowness of a mine, or the greater depth and width of the vein. It is those only who own land of superior fertility in the country who enjoy economic rent; land which does not yield economic rent is "*no rent land*."

For instance, four farmers own fields of ten acres each which they devote to the cultivation of wheat. \$100 in labor and capital is expended in the cultivation of each field. Because of the differences in fertility, the first secures 100 bushels of wheat, the second 120 bushels, the third 160 bushels, and the fourth 180 bushels. As the quality of the wheat is the same on each of the four tracts each farmer receives the same price per bushel, say \$1.

The first spends \$100 for labor and capital goods and receives \$100; that exactly covers his expenses; he does not enjoy economic rent; his land is "no rent" land.

The second spends \$100 and receives \$120; he not only covers his expenses for labor and capital goods, but he has

\$20 more; the \$20 is economic rent, and is due solely to the superior fertility of his land.

The third spends \$100 and receives \$160; he covers his expenses for labor and capital goods and has \$60 more; the \$60 is economic rent, and it also is due solely to the superior fertility of his land.

The fourth spends \$100 and receives \$180; he covers his expenses for labor and capital goods and has \$80 more; the \$80 is economic rent, and it also is due solely to the superior fertility of his land. Accessibility to market is also a factor of importance in a farmer's financial problems.

Suppose it costs the owner of the first field 3 cents a bushel for transportation of his wheat to market, the second 5 cents per bushel, the third 8 cents per bushel, and the fourth 10 cents per bushel. The first farmer will spend an additional \$3; consequently, he will fail by that amount to cover his costs of production; the second farmer will spend an additional \$5; consequently, he will enjoy an economic rent of $20 - 5$ or \$15; the third farmer will spend an additional \$8; consequently, he will enjoy an economic rent of $60 - 8$ or \$52; the fourth farmer will spend an additional \$10; consequently, he will enjoy an economic rent of $80 - 10$ or \$70. The following diagram will illustrate economic rent on agricultural land.

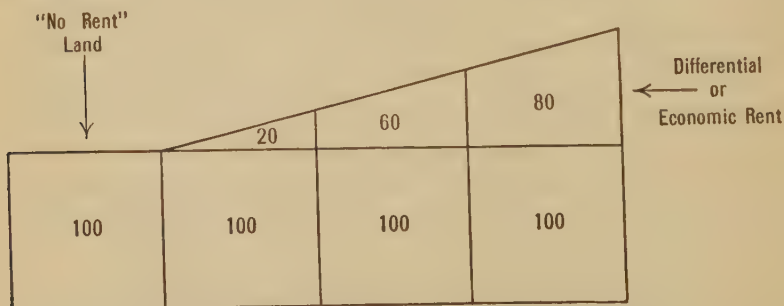


FIGURE 103. DIFFERENTIAL OR ECONOMIC RENT

In cities, economic rent is due to superior location; land in cities is used as sites for residences, factories, stores, and "sky-scrapers." The principle already illustrated in connection with the four plots of agricultural land operates in a similar way with plots of urban land; the only difference is that the superiority out of which economic rent grows in the city is superiority of location and not superiority in fertility of the soil.

Let us suppose that a man in business as a retail grocer has four stores; his invested capital funds in each amount to \$10,000; on each "turn over" his "gross profit" is 30%. On site A, in the suburbs, there is only one "turn over" in a year; on site B, nearer the center of the city, there are two "turn overs"; on site C there are three; and on site D there are four.

By "turn-over" is meant the number of times the amount of the capital funds invested in a business will go into the amount of the gross sales; for example, if the capital invested in a business is \$10,000 and the gross sales during a year are \$100,000, the capital funds have "turned-over" ten times. His experience in the different sites is exhibited in the following table:

	A	B	C	D
Turn-over	1 (30%)	2 (30%)	3 (30%)	4 (30%)
Gross receipts	\$10,000	\$20,000	\$30,000	\$40,000
Gross profits	3,000	6,000	9,000	12,000
Wages	\$1,500	\$2,000	\$2,500	\$3,000
"Imputed interest"	600	600	600	600
"Necessary profits" (See p. 498) . .	900	900	900	900
Total expenses	\$3,000	\$3,500	\$4,000	\$4,500
Economic rent	0	2,500	5,000	7,500

On site A there is no economic rent; it is "no rent" land; on site B the economic rent is \$2,500; on site C it is \$5,000; and on site D it is \$7,500.

The economic rent in the case of mines and oil wells is worked out in a similar manner. The only important peculiarity of mines and oil wells is the fact that the more coal, iron, copper ore, and oil that is removed from the earth the less there is of it; the supply is being continually and permanently exhausted; that is not the case with an agricultural plot of ground; for that reason the economic rent of mines or oil lands is usually called a "royalty" and consists of a certain portion of the output; for example, one barrel out of every eight barrels of oil taken from an oil well.

Rent and the marginal theory of productivity. — According to the marginal theory of productivity, the price of any agent of production tends to equal the value of the marginal product of the entire supply of that agent. Demand for land is based upon its marginal productivity; the supply of land is fixed, so that if the supply of land of a particular grade is abundant, its marginal productivity and its value will be small, but if the supply of land of that grade is scarce, its marginal productivity and its value will be high.

Economic rent is not a part of price. — In the illustration given in the preceding paragraph, of the four tracts of land, the owner of the first plot secured 100 bushels of wheat which at \$1 per bushel just enabled him to cover his expenses for labor and capital goods.

He is the marginal producer; according to the theory of normal value the marginal producer's cost of production is one of the two important factors in determining price; but the marginal producer receives no economic rent; therefore, economic rent does not enter into the determination of normal price.

Storekeepers sometimes defend themselves for charging high prices by saying that they must do so in order to pay

their high rents. As far as *economic rent* is concerned they have placed the cart before the horse. The Woolworth 5 and 10 cent store at 41st Street and Fifth Avenue, New York, could not be profitable, if high rent caused high prices. High economic rents do not make high prices; it is high prices or large sales that make high economic rents. Because the people who pass along Fifth Avenue, New York, are able and willing to pay high prices or because the aggregate of their purchases is large the rentals charged for business locations on that artery of trade are princely in their proportions.

Economic rent is unearned. — The theory of economic rent here expounded was first promulgated by David Ricardo, an English banker; it is known as the Ricardian theory of rent, and is generally accepted by modern economists.

Some thinkers, however, have drawn startling conclusions from it. Economic rent, we have seen, arises either from superior fertility of soil or superior location; in the one case, it is due to the bounty of nature; in the other, it is due to society; the mere aggregation of people in a large city creates site values. "You and I and the rest of us," by our presence in New York, Chicago, San Francisco, or any other large city, create the fabulous real estate values that characterize the best business sections of those immense aggregations of population. The recipient of economic rent does nothing to create it; hence, economic rent is unearned. Some thinkers have drawn far-sweeping conclusions from the fact that economic rent is unearned.

RADICAL LAND REFORM

The single tax. — Because economic rent is unearned, the so-called "single-taxers" propose that government shall

compel all owners of land to pay in taxes the full amount of the economic rent.

They call it the "single tax" for the reason that, if this were done, all other taxes, so they assert, could be repealed.

To buttress their case in common experience, they appeal to conspicuous examples, generally known, in which individuals and families have been allowed by our legal system to become possessed of land of enormous value; these fortunate individuals have themselves done nothing entitling them to the huge incomes they enjoy. Why not, then, turn these incomes into the coffers of the government so that all, instead of a few, can profit by them?

1. In the first place, should these plans be adopted, *land would not be free to every one*. The proposal is not that economic rent should be abolished but that it should go into the public treasury and not into private purses.

Suppose that the proposal were to be accepted; landless people would not be presented with the use of land they might desire. Land is limited in quantity; there would be no more of it then than there is now; people would bid against each other for the more desirable parcels; and as far as the great majority is concerned the change from private to public landlords would not help them any.

2. In the next place, it simply is not true that many, perhaps most, owners of land to-day have done nothing to entitle them to this "unearned" income. Most owners of land have the best title to it in the world; *they have paid for it*.

Suppose that your father five years ago bought a plot of land and erected a home on it; would the injustice of his using the land as the site for a home for his family appear to him to be very great? On the contrary, he would rightly feel that, if he were obliged to pay the entire economic rent

to the city or the state, that would be an intolerable injustice.

3. Much is made of the "unearned increment" that accrues to the owners of land through enhanced prices; wonderful tales are told of individual instances where great profits have been enjoyed because of real estate booms. Doubtless some of these stories are true; but little is said of the hundreds of "investors" who have lost money in the purchase of vacant lots.

The "undeserved decrement" that the owners suffer in the decreased value of their holdings is as real as the unearned increment; the abandoned farms of New England are not solitary examples; the march of retail business "up town" on Manhattan Island has revealed many cases of this kind.

Speculation in vacant land. — And, still further, careful investigation reveals the fact that speculation in vacant city lots is not only attended with great uncertainty; but, over a series of years, more money will be made by investing in a savings bank at compound interest.

The two adverse factors that render land speculation so precarious are. (1) the fact that taxes must be paid; there is nothing sure but death and taxes, you know; and (2) the buyer must charge against his investment the "imputed" interest which he fails to receive because his money is tied up in vacant land.

Mr. G. B. L. Arner of the Urban Land Economics Institute published in the *Quarterly Journal of Economics* for August, 1922, well-authenticated facts disclosed by an investigation of many auction sales of land in New York City.

At the greatest sale of building lots ever recorded, held in New York City in 1913, lots which sold all together for

\$3,600,000 or about \$1217 per lot, were worth in 1921 the sum of \$2,700,000 or about \$900 per lot. Here is a loss in price of \$900,000, or about 25%; but to this loss must be added further loss in taxes and special assessments of \$1,200,000; a total loss of \$2,000,000, or over 55% in eight years, without making any allowance for interest on investment.

He makes the situation very real by giving an individual case. Suppose that at this sale a man had acquired a plot, 50×100 , for \$2,434, \$730 cash and balance of \$1,704 on mortgage at 6%. By 1921 he would have paid out \$818 in interest, \$333 in taxes, and \$486 special assessments, total \$1,637, which added to his original payment of \$730 would make a total of \$2,367, and he still owed the \$1,704 on the mortgage. He could sell his holding in 1921 for \$1,800, which would leave him \$96 out of his payments of \$2,367.

If he had placed his money in a savings bank at 4%, he would have had \$2,700. He has virtually paid out \$300 a year, or \$25 per month, for the privilege of owning vacant lots. This illustration shows what is meant by the "undeserved decrement."

Finally, another practical difficulty in attaining justice under the "single tax" is the impossibility of ascertaining the amount of the single tax. This difficulty will be made plain when, in the department of Public Finance, we come to study the "general property tax."

John Stuart Mill, an eminent English economist, proposed that the entire economic rent on future enhanced land values should be confiscated in taxes; but Henry George, the American advocate of the reform, was more radical; he was in favor of immediate confiscation of all economic rent.

INTEREST AND RENT

The relation of interest to rent. — Suppose you have \$5,000 to invest. To you, the question of how you shall invest it is a matter of importance.

Possibly you can invest it in land and derive a satisfactory income from it. Suppose you can buy a small farm for that sum; you ascertain that you can lease the farm with its buildings and equipment for \$500 per year.

You also ascertain that you can loan the money on a note secured by mortgage on land @ 6%, or for \$300 per year. You consider that the extra \$200, arising from purchase and lease of the farm, will pay taxes and cover the risks of ownership. Accordingly, you decide to buy the farm and to lease it to a tenant.

You will look upon the \$500 income derived from the farm as interest on the capital funds you have invested in the farm. To the tenant, however, the payment to you of the \$500 will be considered as rent, *i.e.*, as commercial or contract rent.

Now, why did you purchase the farm? *Because it commands a rent.*

The reason the price was \$5,000 rather than \$10,000 is because the prevailing rate of interest is 6%. Were the prevailing rate of interest 3% the selling price of the farm would be \$10,000. Land has a value because it commands a rent; its money value is governed by its income-yielding power.

High land values do not make the price of agricultural products high; it is high prices for agricultural products that lead to high rents; and these, in turn, make land values high.

In the United States, lands are commonly sold and not

leased, although there are, of course, many instances of leasing land here. The land upon which stands Wanamaker's store in New York is said to belong to Sailors' Snug Harbor of Staten Island; Trinity Church, New York, owns many plots of land in Manhattan upon which business structures are erected; the church leases the land on long-term leases. The city of Baltimore is unique among American cities in this matter. In that city a large part of the land is owned and leased for a term of years to those who erect buildings on it.

The ground rent paid in these instances is the nearest actual approach that we can find to what we have called economic rent.

Ground rent and economic rent, however, are not identical; ground rent includes economic rent and interest on the cost of improving the land with sewers and street paving.

To-day, in New York, real estate operators usually figure that the value of a piece of property is seven or eight times its annual rent. For example, if the rent of a certain building is \$100,000 per year, the selling price put on it will be from \$700,000 to \$800,000. Ground rent differs from differential or economic rent in that the former, in case of rural land, includes payment for improvements in the way of draining and fencing, and in the case of urban land, it includes payment for improvements in way of street pavement, sewers, and water supply. Hence, ground rent is always partly interest.

In England, lands are commonly leased; there, the price of land is usually thought of as its *annual* price or rent; and the selling price is often expressed as, say, "twenty years' purchase," meaning twenty times the annual rent. For instance, if the rent of a parcel of land is \$600 and the prevailing rate of interest is 6%, 1% will be \$100, and 100% will

be \$10,000; the value of the land will be \$10,000; or, in other words, the land is worth about fifteen years' purchase. Of course, speculative "booms" often temporarily interfere with this method of determining the price of a parcel of land, but speculation does not nullify the action of the principle that, in the long run, economic rent is the most important factor in determining the value of land. This method of determining selling prices upon the capacity of the land to yield a given annual income is called *capitalization*.

EXERCISES AND PROBLEMS

I

1. What is the meaning in Economics of the term "land"?
2. What is the meaning in Economics of the term "rent"?
3. How does commercial or contract rent differ from economic rent?
4. Why is economic rent called a *differential gain*?
5. What is "no rent" land?
6. What two factors determine economic rent?
7. Reproduce the diagram illustrating economic rent. Explain it.
8. To what is economic rent in cities due?
9. Make up an illustration of urban economic rent different from that in the book.
10. How is the economic rent of mines and oil wells different from that of rural and urban land?
11. According to the marginal theory of productivity, how is the value of land determined?
12. Show that economic rent is not a part of price.
13. Is economic rent "earned"? If not, are the owners of land entitled to it?
14. What is the "single tax"? State the arguments for and against it. Which do you think the stronger? Why?

15. What is the "undeserved decrement"? Should the government reimburse the unfortunate landowners who lose money in land? Why not?

16. Is speculation in vacant lots generally profitable? Is it socially desirable?

17. What is the relation of interest to rent?

18. Wherein do "ground rent" and "economic rent" fail to coincide?

19. In connection with land values, what is meant by capitalization?

II

1. The Duke of Bedford recently sold for a very large sum a tract of land in London which one of his ancestors bought for an insignificant amount. Do you think that this increase in value belonged to some one else and, if so, to whom?

2. The rentals from a New York office building amount to \$50,000 a year. The building is worth \$200,000. To provide for insurance, depreciation, and such fixed items, \$10,000 is expended annually. The current rate of interest upon investments of equal security is 5%. What is the value of the land?

3. Is this true? "Public improvements and efficient public service increase site-value only, therefore site-value should pay for them." Explain.

4. In 1820 land in Ohio sold for \$2 or less per acre. To-day some of this land produces less crops per acre than in 1820, yet its price is \$100 or more per acre. Explain the advance.

5. "Our prices are low because we do not have to pay high rent." "The prices of the commodities sold on the more expensive sites are not higher." Can you reconcile these two statements? If so, how? If not, which is correct, and why?

6. If a man buys a piece of land, keeps it five years, and then sells it at 25% advance, has he made a good bargain?

7. In endeavoring to determine the income from a piece of real estate, which of the following expenditures would you consider

additional investment and which would you subtract from the gross income to get the net income: taxes, repairs, depreciation, permanent improvements, additions, as piazzas and additional rooms?

III

1. (a) What is rent? (b) When in a new country does rent arise? (c) What is the difference between economic and commercial rent?

2. Demonstrate the correctness of the following statement: "Rent arises from differences in the fertility of soils."

3. What are the chief factors that affect the rent of land in a city? State the meaning of unearned increment.

4. Show that land values depend to a degree on (a) climate, (b) government, (c) transportation facilities, (d) density of population, (e) character of population.

5. Explain the meaning of the statement: "Rent does not enter into the determination of normal price."

6. What is meant by the single tax? Is it a desirable reform? Why?

7. In 1880 a city lot was valued at \$1,000; and in 1900 it was valued at \$5,000. If the owner had not improved the lot in any way during the interval, on what principle and to what extent was it fair for the city to impose a tax on the \$4,000 of additional value? Discuss.

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CHAPTER XXI

WAGES

DEFINITION

What are wages? — This is another instance of a technical use differing from the popular use ; this time economists enlarge the meaning of the term. Ordinarily, wages mean payments for labor by the *day* or by the *week* — such as \$3.50 per day earned by a man digging in a subway, or \$32 a week earned by an expert linesman on an electric road. However, technically, in Economics the word is used in a broad sense to cover *the price paid for labor of any kind*. It includes wages paid by the hour, day, or week ; but, also, in addition, it includes salaries of clerks and executives, commissions paid to salesmen, and fees paid to lawyers and physicians, etc.

CLASSIFICATIONS

Kinds of wages. — Wages are not all paid on the same basis. There are at least six different kinds of wages, judged from the standpoint of the method of computing the amount of the wage.

First, *time wages*. The amount paid is determined by the length of time the laborer has worked ; *e.g.*, if the rate is \$5 per day and the laborer has worked $4\frac{1}{2}$ days, he will find in his pay envelope \$22.50 ; or if the rate is \$125 per month, the worker will probably receive on the first of the month

a check for \$125 to cover his salary for the preceding month ; if the rate of pay is \$3,600 per year the monthly salary check will be \$300.

The time a laborer has worked is in many instances the only possible basis of payment, especially in those cases in which it is impossible to separate the product of the individual worker from that of others on the same job. It would not be fair, for example, to pay a clerk solely on the basis of the goods he sells ; he must also be paid for the time he spends in trying to sell goods and in performing other necessary tasks about the store.

Second, *piece-work wages*. The amount, paid at regular intervals, weekly as a general rule, is determined by the number of units of product completed ; *e.g.*, a paper hanger may be paid a certain rate per roll, or a brick layer at so much per thousand.

Third, *commissions*. These are a form of piece wages, being a certain per cent of the value of the business handled by the worker for his employer ; *e.g.*, a life insurance agent may receive a commission of 25% on the first premium and 12½% on each renewal for ten years.

Fourth, *fees*. These are similar to piece-work wages, but the " product " is usually a non-material service instead of a physical commodity. A lawyer, a physician, or an architect is paid fees for his advice, and these fees are a form of wages.

Fifth, *wages in kind*. These consist in payments, not in money, but in a share of the product ; for example, farm hands may be paid for their labor by a portion of the crops ; and domestic servants may receive board and lodging in addition to money wages.

Sixth, *extra wages*. These include such payments as bonuses, shares in the profits of the business, insurance pur-

chased for the employees by the employer, and gifts of shares of stock in the business, etc.

While the amounts and the frequency of these payments are variable still they are a part of the payments made for work, and, as such, are properly classed as wages; for example, the Christmas bonuses paid in prosperous years by some of the Wall Street firms amount all the way from 25% to 100% of a year's salary.

Nominal and real wages. — This distinction between nominal and real wages is the difference between the *amount of money received as a wage*, on one hand, and *what the money will buy*, on the other. This distinction is important not alone in connection with wages, but it is equally vital in the case of any other form of income.

Not only the wage-earner, but the land-owner, the capitalist, the entrepreneur, and the government as well, is each interested, not only in the number of dollars that may be received in the form of wages, rent, interest, profits, and taxes; these come in the form of money; but, *how many human wants can an individual income supply?* That is the vital question to every receiver of an income.

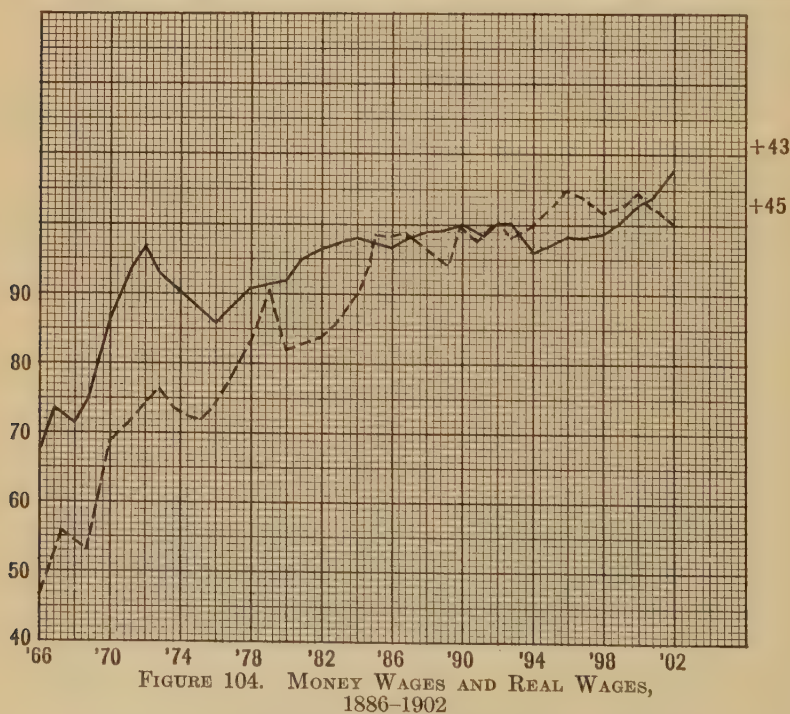
Your father's income is, let us say, \$10,000 per year. Is that a large income or a small income? It is not so easy to answer that question as you may suppose. If the prices of the necessities of life, food, clothing, shelter, etc., are low, that income may render it possible for him and his family to live in comparative comfort and ease; but if the general price level is high, the income, in reality, may be inadequate to meet the necessary family expenditures.

The real value of money is always measured by the quantity of goods and services it can buy. For instance, we have already learned¹ that in the year 1865 the index

¹ Page 291.

number was 183; that means that prices were high that year; and an income that year of \$10,000 did not mean so much because it could not buy as much as it could ten years later. In 1875 the index number was 118; in that year an income of \$10,000 had a comparative purchasing power of \$15,513.

We also saw that in 1910 \$10,000 could be expended when the index number was 100; consequently many goods and commodities could be purchased in that year for \$10,000; but in 1920 the index number was 225; that means that prices were $2\frac{1}{4}$ as much as in the former year. Compared



(Money wages — solid line)
(Real wages — broken line)

with its purchasing power in 1910, in 1920 the purchasing power of \$10,000 was only \$4,444.

The course of money wages and real wages for the years 1886-1902 and 1907-1924 is illustrated in the graphs presented in Figures 104 and 105. They have been constructed from data furnished by the United States Government.

ECONOMIC CHARACTERISTICS OF WAGES

Wages are a price. — How are wages determined? Why is the manager of a business paid \$12,000 per year while the office boy receives \$2.50 per day?

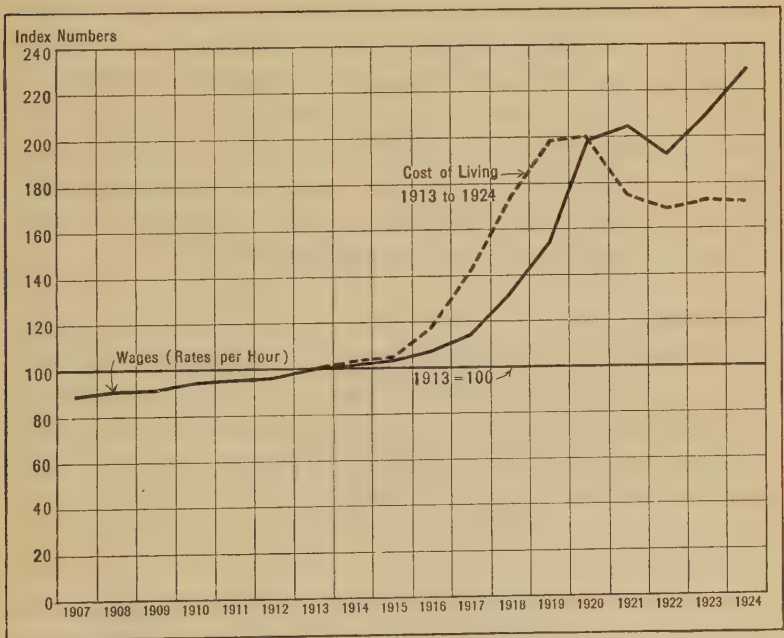


FIGURE 105. MONEY WAGES AND REAL WAGES,
1907-1924

According to the marginal productivity theory of distribution, each factor in an enterprise is paid in proportion to the marginal value of its contribution in production. The \$12,000 man is handsomely remunerated because his contribution to the success of the business is worth \$12,000; the office boy is paid \$2.50 per day because that is all he is worth to the business.

You may say: "Yes, that sounds reasonable; but why is the salary of the manager \$12,000 rather than \$15,000, and why is the pay of the office boy \$2.50 per day rather than \$3?" The explanation is found in the fact that wages are a price; they are the price paid for services rendered; services rendered are a commodity the price of which is determined as other prices are determined. (See pp. 260-270.)

Is labor a commodity? — The Clayton Anti-trust Act states that labor is not a commodity or article of commerce; this pronouncement is contrary to the usage of economists; human services are certainly bought and sold; for that reason, to the economists, labor seems to be a commodity, and such they call it. However, labor has certain peculiarities not possessed by other commodities.

As a commodity, labor is commonly said to possess three peculiarities.

First, *the laborer and his work are inseparable*. In order to deliver this commodity in exchange for the price paid for it, the laborer must deliver it in person; for that reason he is deeply concerned in the conditions under which he must make delivery of the commodity he has sold; consequently laws provide for healthful conditions of work and factory inspection.

Second, *the supply of labor changes slowly*. The demand for laborers to do a certain kind of work may suddenly increase or decrease, but the supply is fairly constant; in



the case of a sudden increase in demand for laborers in a given line, employers will compete with each other for the limited supply; that will force the price of labor upward; it will be to the advantage of the laborers. On the other hand, in case demand falls off, then the laborers will compete for employment, and the price of labor, viz. wages, will be forced downward; this will be to the disadvantage of the laborers.

Third, *labor is a perishable commodity*. In order to realize an income to-day by the sale of his labor the laborer must dispose of it *to-day*. Unless he sells this commodity to-day, to-day's income is gone forever. That is not the case with the manufacturer; usually his goods will keep and he can wait for a favorable opportunity to dispose of them; not so the laborer; he is obliged to sell his commodity at once. Most wages are a competitive price. The demand for the services of labor is determined by its marginal productivity, and the supply is determined by the number and efficiency of the workers.

“**Non-competing groups.**” — According to the census of 1920 the total number of wage-earners in the United States was 26 millions. Every individual of this great host of workers was not in competition against every other individual.

Street-car conductors do not compete with bakers, nor do skilled mechanics compete with school teachers.

Our 26 millions of wage-earners are stratified into non-competing groups; competition exists within the groups; street-car conductors compete with street-car conductors; bakers compete with each other; skilled mechanics with skilled mechanics. Figure 107 is a pyramid which illustrates the non-competing groups of laborers.

At the bottom of the pyramid is the largest group; it comprises the unskilled workers, the “hewers of wood and

independently

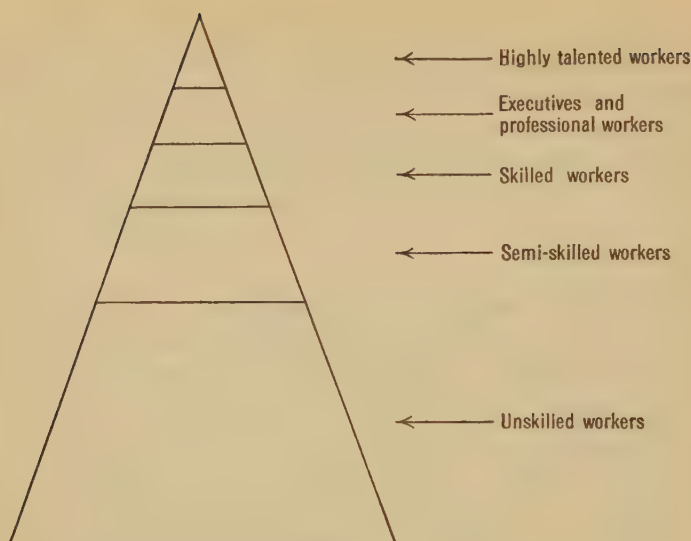


FIGURE 106. NON-COMPETING GROUPS OF LABORERS

the drawers of water." Above it, and less numerous, are the semi-skilled manual workers and the low-grade clerical workers. Above these there is a still smaller group comprising the skilled workers, clerical workers, high-class mechanics, and others. Then there is a comparatively small group of professional workers and executives. At the top of the pyramid are a comparatively few exceptionally talented workers, the geniuses, "captains of industry," and others.

Within these groups competition is active; but those in one group do not compete with those in another group; and yet the groups are not closed or hermetically sealed; in the United States it is possible for competent and ambitious workers to raise themselves into the higher and smaller groups above them; and, sometimes, through misfortune

or on account of personal defects individuals fall from a higher to a lower group.

Notwithstanding these facts, the non-competing groups are characterized by approximate stability. It is said that, generally speaking, the large families of the unskilled workers render it impossible for them to rise to higher groups, while the smaller families of the higher groups enable them to maintain their positions. They marry later in life, have fewer children, and become accustomed to a higher standard of living.

This stratification of the workers into these non-competing groups is attributable to several causes.

1. The first set of influences which account for the stratification is *differences in inborn capacities*.

Each human being is born with certain capacities; he cannot do more than he can do; some of us "have no ear for music"; a lifetime spent in studying music would still leave some people unable to "carry a tune." The army tests for the World War revealed the fact that the level of intelligence in this country is not high. "Approximately twenty-four per cent of the National Army could neither read nor write the English language sufficiently well to make an intelligent use of it."¹

2. A second set of influences comprise *the environment in which one is brought up*.

a. While education is compulsory in this country most people never go beyond the grammar grade; fewer go through high school; and fewer still go through college and university. The type of work one can perform depends in large measure upon his education.

b. Again, *home influences are powerful* in determining one's capacity for work; some homes are characterized by

¹Perry, R. B., *The Plattsburgh Movement*, p. 258. Dutton.

thrift, sincerity, and ambition ; others by shiftlessness, moral indifference, intemperance, and dishonesty. These traits are apt to be handed down from one generation to another and they thus become cumulative in their strength. Thus it is that the stratification into different economic groups is accomplished.

Occupations are not equally attractive. — 1. *Some occupations are in themselves more attractive than others.* Where it is possible for an individual to choose employments, he would naturally prefer the more pleasurable ; in order to persuade him to accept the less pleasurable work the employers must offer higher pay. This will account, in a measure, for some of the inequalities existing in wages. College professors are compensated for their relatively small pay by congenial work, an opportunity for original research, short hours, and long vacations.

2. *Some occupations involve risk and danger.* Wages in these employments must be higher than in others less hazardous. The man who paints steeples and tall towers must be paid at a higher rate than that commanded by an ordinary house painter.

3. *A long period of training or apprenticeship renders some occupations unattractive.* In some of the professions because of the extended preliminary training that is demanded, it is impossible for a beginner to become self-supporting until he is twenty-five or thirty years of age.

4. *The high esteem in which some occupations are held more than outweighs the small pay attached to them.* High political office seldom pays well ; but there seems to be no lack of candidates.

5. *The opportunity for advancement lures many into some vocations,* for instance, the practice of law. It is an overcrowded calling because it is so often a stepping-stone to

conspicuous success in other lines. A legal training is a good thing in itself; hence many take it who never enter upon the practice of law.

6. *Regularity in employment is usually accompanied by wages lower than those paid in irregular employments*, for example, bricklayers receive higher wages than carpenters because bricklayers do not work all of the time; their employment is more dependent on the weather than is that of carpenters.

Immobility of labor. — This phrase expresses the fact that laborers cannot readily move from place to place nor from occupation to occupation. It might easily be that there is a shortage of carpenters in Texas and an over-supply of them in Chicago, New York, or San Francisco.

There are many and serious reasons why a carpenter out of work in either of these cities could not take advantage of it to better his condition by removing to Texas.

1. In the first place the chances are that he will not know of the opportunities existing in Texas; the machinery for disseminating this kind of information is inadequate and defective.

2. And, too, the expense of transportation of himself and family with all of their "goods and chattels" would be prohibitive.

3. Besides, the man and his family have social relations that must be severed by removal to so great a distance; and they would be reluctant to leave their relatives and friends.

4. And, finally, our carpenter could not take advantage of a shortage in plumbers because of the difficulties and the time lost in learning a new trade or profession. (See p. 264.)

Theories of wages. — The controversial nature of the questions discussed in the department of distribution is well illustrated by the various theories and "laws" of wages

that have been proclaimed and expounded from time to time.

First, *the "Iron Law of Wages."* This is the earliest of modern theories of wages. At first it was called the "cost-of-production theory." It was stated that while market value depends on supply and demand, normal value of reproducible commodities depends upon the cost of production; inasmuch as labor is a reproducible commodity its value, in other words, wages, must be fixed by the cost of production.

The cost of production of labor is the cost of a continuing supply of laborers; the only restriction on population is the bare possibility of supporting life, therefore the supply of labor will continue up to the point of minimum subsistence; hence the rate of wages always tends to be at the bare minimum of existence.

Two defects in this reasoning are obvious:

1. Labor is not a reproducible commodity in the sense suggested. The experience of the United States is evidence that growth of population can occur along with a steadily rising standard of living.

2. Cost of production, it is true, is often an element in the price of a commodity, but it is by no means the only element.

Second, *the wages-fund theory.* This theory held the stage in England from 1820 to 1870. It numbered among its adherents Adam Smith, Malthus, James Mill, John Stuart Mill, and Henry Fawcett.

According to this theory —

1. Wages are paid out of capital.
2. The amount of capital available at any one time is predetermined and fixed, and
3. The greater the number of laborers the smaller the share of each.

The practical conclusion drawn from these premises was that as laborers cannot in any way regulate the amount of capital the only way they can increase their wages is to keep down population. This gloomy conclusion accounts for the unpopularity among laborers of Economics, or of Political Economy, as it was then called.

A violent controversy raged over this theory ; it was criticized on several grounds ; John Stuart Mill acknowledged that he was in error and changed sides.

Each of the three propositions was controverted.

1. Critics of the theory denied that wages are paid out of capital ; they are only advanced out of capital. They are paid out of the product. Labor, like capital, earns its own reward ; wages are not paid out of capital in any different sense than interest or profits are paid out of labor. The factors of production coöperate and each is paid out of the joint product which they create.

2. There is no such rigidity in the amount of capital as is asserted by this theory. The capital applied to production is as easily increased as is the labor force. Both labor and capital at any given time are elastic quantities ; by increasing the reward for either the supply can be increased.

3. The statement that the rate of wages is determined by dividing the amount of capital by the number of laborers is untrue, (1) because it fails to recognize the fact that the amount of capital is not a fixed sum, and (2) because it ignores the fact that the laborers themselves make a contribution to the product and thus increase the amount to be divided.

Third, *the standard of living theory of wages*. This theory holds that wages are just sufficient to enable the laborers to maintain their present standard of living. By "standard of living" is meant the necessities, comforts, and

luxuries to which one is accustomed. Professor Ely defines it as "the number and character of the wants which a man considers more important than marriage and family."

There is a large measure of truth in this theory, although it is not true that the rate of wages is determined by the standard of living of laborers.

1. There is a sense in which it is a fundamental cause, yet it acts, not directly, but through its effects on numbers. A high standard of living does not in itself increase wages. It may serve to lower or to keep low the birth rate, and thereby create one of the conditions on which the maintenance of high wages depends. But, unless the other conditions are present, — a large demand for laborers, which itself arises from a large productiveness of industry, — a high standard of living of itself cannot accomplish anything.

2. A high standard of living also has some effect on the bargaining process. The first step in the settlement of the wages of laborers is a contract with the employer. Many different factors bear on the contract; not only labor organizations but also established traditions as to what are "fair wages" or "living wages." Although these are vague question-begging phrases, men's notions as to what is just pay or living pay are usually drawn from the rate to which they are accustomed; but the fact that they are accustomed to a certain rate of pay is itself an important element in the bargaining. Thus within the debatable ground subject to the "higgling of the market" a high standard of living may have some direct effect on the outcome.

Fourth, *the residual theory of wages*. This theory of wages was first propounded in 1876 by Francis A. Walker in his book entitled *The Wages Question*, and in his *Political Economy*,¹ General Walker describes the laborer as the

¹ Pt. IV, Ch. V, Sec. 326.

“residual claimant to the product of industry,” holding that after the deduction of rent, interest, and profit the whole remaining body of wealth, daily or annually created, is the property of the laboring class, their wages or the remuneration of their services.

Although for a time these views were quite generally accepted by economists, they are so no longer. To-day it is generally held that inasmuch as the entrepreneur undertakes to pay rent to the landowner, wages to the laborer, interest to the capitalist, and taxes to the government, it is he who is the residual claimant to the product of industry; if, after making all of these payments, which to him constitute his costs of production, there is anything left, it belongs to the entrepreneur and constitutes his profits.

Fifth, *the marginal productivity theory and wages*. According to the marginal productivity theory, the wages of labor will tend to equal the value of its marginal product; the supply of labor is governed (1) by the size of the population, (2) the proportion of it gainfully employed, (3) the number of persons capable of doing the various kinds of work, (4) the willingness of the people to work, (5) the desirability or unattractiveness of the work.

EXERCISES AND PROBLEMS

I

1. Define wages.
2. Enumerate and define six kinds of wages.
3. What are nominal wages? Real wages? Which is the more important? Why?
4. In what way does the *index number* enable us to understand the difference between nominal and real wages?
5. What is the significance of the statement that “wages are a price”?

6. Is labor a commodity? Why or why not?
7. Name three peculiarities that differentiate labor from other commodities.
8. What are non-competing groups of laborers?
9. Name the five groups in the pyramid.
10. What are the various influences which determine in which group a given worker will find himself?
11. In general how does attractiveness of an occupation affect the remuneration offered by it?
12. Why do "sand-hogs" get high pay?
13. Why is a \$25,000 man willing to accept a political job that pays him only \$5,000?
14. Why is the legal profession overcrowded?
15. Why do soft-coal miners get higher pay than truck-drivers?
16. What is meant by "immobility of labor"?
17. Explain and discuss each of the five theories of wages.
18. Which do you think is the most reasonable theory of wages? Why?

II

1. What are some of the methods of paying workmen which are intended to lessen the feeling of hostility between employer and employee?
2. To what extent do the laws of your state protect the interests of the workers?
3. Women teachers in New York City occupying similar positions to men are paid the same salaries. Give reasons for and against such payments.
4. "The greatest obstacle to American leadership in foreign trade is high American wages." Are such wages a real obstacle? If so, are they objectionable?
5. A member of a wealthy family takes up the occupation of interior decorator in order to satisfy a desire for definite employment. Does this injure those who rely on this occupation for means of subsistence? Does it injure working people in general?

6. "The employer's interest is in money wages, the laborer's in real wages." Discuss.

III

1. State two important factors that, under normal conditions, determine the wage rate for unskilled manual labor.

2. Why do unskilled manual laborers in the southern states receive much smaller wages than the same class of laborers in the northern states?

3. Show by illustration that competition in any industry tends to limit wages.

4. Discuss the following: "Prices are not necessarily high because wages are high."

5. According to Adam Smith the following causes determine the differences in wages in different employments: (a) agreeableness or disagreeableness, (b) ease or difficulty of learning the employment, (c) regularity or irregularity of employment, (d) need of trustworthiness in the workman, (e) probability of success. Compare, in respect to the points mentioned in (a), (b), (c), (d), (e), two occupations with which you are familiar.

6. Give reasons why (a) a physician receives more pay for his services than a common laborer, (b) a woman receives less than a man for the same work.

7. Give three economic causes for high wages in the United States.

8. State three particulars in which the workman's condition in this country is better than it was 20 years ago. Mention some forces that have operated most strongly to bring about such improvement.

9. "Most differences in rates of wages may be explained superficially in the same way that differences in rent were explained." Explain.

10. Show the justice in the present inequalities in the remuneration of labor.

11. State in some detail the relation of wages to the standard of living.

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CHAPTER XXII

INTEREST AND PROFITS

INTRODUCTION

Tentative definitions. — In the process of distribution the value of the product is divided into five shares corresponding to the five factors of production. We have already considered rent, the share that goes to the owner of land or scarce natural resources, and wages, the share that goes to labor. In this chapter we shall deal with interest, the share that goes to the owner of capital goods and profits, the share that goes to the entrepreneur.

I. INTEREST

What is interest? — Perhaps the simplest way in which we can ourselves answer this question is to ask and answer two other questions.

1. Why do people borrow? 2. Why do people lend?

1. *Why do people borrow?*

(a) Of course you have borrowed.

You remember that day last summer when you visited Ethel, and "the boys" came over. A game of tennis was proposed. Everybody was willing to play, but you said: "It is too bad, but I left my racket at home." And then Tom said: "That's all right, Betty, I have an extra one. I'll run home and get it," which he did. He loaned and you borrowed a tennis racket.

Why did you borrow it? *Because you wished to use it.* When you returned the racket to Tom, you said: "Thank you, Tom," to which he replied: "You are welcome."

This was a consumption-loan; you needed a racket because you wished to use it; but it was not a business transaction.

(b) Let us consider a consumption loan that is a business transaction. "Daddie" and family live, let us say, in a rented apartment; the landlord "jumps the rent" to a figure that seems to your father to be "outrageous." He and mother confer over this domestic tragedy; they decide to move out into the suburbs where they can own their own home; no more landlords for them, if you please.

Father consults a friend in the real estate business who points out several desirable parts of the town in which new houses are being built and where "just the thing" can be bought at bargain prices. Mother makes a trip of inspection accompanied by the real estate agent; she decides on "just the dearest place" and tells father about it; he inspects it and finds it satisfactory.

Then the question of price comes up. The price is 17-5.

To the uninitiated let us explain that this means \$17,500.

The real estate agent thoughtfully remarks that as prices range, the place is worth 18-9, but, in order to secure so desirable a family in the neighborhood, the price will be shaved to 17-5.

Father is in business and needs most of his funds there; he feels that he cannot spare 17-5 all at one time; the most he can afford to put into a home is \$10,000. That is entirely satisfactory to the real estate dealer; father pays down \$10,000 and gives his note for \$7,500 @ 6% for five years to the local savings bank; he has the privilege of

reducing the principal by \$500 or any multiple thereof on January 1 of any year during the life of the note. The transaction is consummated, and father, mother and the children move into your own home.

Father pays 6% annually, that is, 6% on \$7,500 or \$450 per year interest to the savings bank; then, by putting the \$10,000 into the home he loses the "imputed" interest he might have gotten for it, or \$600 more — in all \$1050. That seems better than the \$2,000 rent demanded by the landlord for the apartment where you have always lived.

This is both a consumption-loan and a business transaction.

This illustration enables us to state that *interest is paid for the use of consumption-goods.*

(c) Although many loans are consumption-loans, the vast majority of loans, both in number and amount, are *production-loans*. The aggregate amount of production-loans made each year in this country can be realized when we state that competent persons assert that the corporations alone pay annually $2\frac{1}{2}$ billions in interest; that does not include partnerships and single entrepreneurs. If the average rate of interest is 5%, then the aggregate annual borrowings for productive purposes by the corporations alone is 50 billions of dollars. But why should a corporation or a business man wish to borrow? To start with, you may be sure that the corporation or the business man will not borrow unless it seems likely that more money will be made by borrowing than by refraining from borrowing, for the reason that every business enterprise is in business for the purpose of making money. Why should a business man go to his commercial bank and ask for a loan? *Simply because he thinks that he can make more money by borrowing funds than the funds will cost him.*

Let us suppose that your father is in the wholesale paint and oil business; he thinks that the price of paint is low but that three months later it will be higher; he is anxious to lay in a stock of paint; but, you will recall that he recently paid \$10,000 on your home; that makes him a little short of funds; so he goes to his commercial bank and asks for a loan of \$10,000 for 90 days; his credit is good and the bank gladly makes the loan at the prevailing rate, say 6%. Your father buys the paint at low prices; his judgment is vindicated by the rapid rise of the price of paint; before the ninety days have elapsed he has sold the paint at a profit of 15%; he repays the loan and has a net profit of $13\frac{1}{2}\%$ on \$10,000 or \$1,350.

In form, he borrowed funds or "money"; in fact, he borrowed paint, which to one in his line of business is a production-good.

In all three of our illustrations, people have borrowed consumption-goods or production-goods *because they wished to use them*; that is why people borrow.

2. *Why do people lend?*

Tom loaned you the tennis racket to be obliging to a "friend in need"; the savings bank loaned \$7,500 to your father on the security of your home because (1) the bank officials considered that the principal of the loan would be safe, *i.e.*, that they could count on getting back the \$7,500 by the end of the five year period; and because (2) the officials can thus count on an annual income for five years of \$450. It is from such incomes that the savings bank is enabled to pay 4% or $4\frac{1}{2}\%$ to its depositors; the commercial bank loaned the \$10,000 to your father for similar reasons; it is by loaning its deposits that a commercial bank makes money; its interest or discount account is its main source of gain.

What is borrowed and what is loaned ? — It is necessary to recur to this question for the reason that there has been a long-standing misunderstanding on the subject. So acute a thinker as the philosopher, John Locke, went astray in arguing about the rate of interest ; he arrived at the proper conclusion that the rate of interest depends upon the demand and supply. But to the question : “ demand for what ? ” he wrongly answered : “ demand for money.”

The mischief of this error lies in its application. If it were true that the rate of interest depends upon the demand and supply of money, then, of course, the way to lower the rate would be to increase the supply of money, *but that will not lower the rate of interest.*

It is in form only that “ money ” is borrowed and loaned ; it is consumption-goods or production-goods that are borrowed and loaned.

What then is interest ? — We are now in a position to ask and to answer this question. *Interest is the price paid for the use of other peoples' consumption- or production-goods.*

It is because of the fact that, in the last analysis, interest is the payment for the use of other peoples' goods that some economists, Professor Seligman for instance, maintain that *interest is rent.* It is rent, they say, because it is payment for the use of goods belonging to some one else.

When so speaking, these writers use the word “ rent ” not in the technical sense in which we have used it but in its popular meaning of *to hire.* For example, you might hire or rent an automobile, a dress suit or a house.

Although our analysis is correct, business usage does not follow it ; business men speak of the “ price of money,” meaning thereby the rate of interest. We shall hereafter do the same, but with the understanding that we do not mean literally what we say.

Kinds of interest. — A distinction is made between (1) *gross interest* and (2) *pure interest*.

1. *Gross interest* includes all that is paid for the use of loanable funds but a part of it is payment for risk; a large part of a pawn-broker's interest charge is made up of this item; it is an insurance against loss.

2. *Pure interest* is the kind we have been discussing, payment for other peoples' consumption-goods or other peoples' production-goods.

Another distinction is made between (1) *loan interest* and (2) *imputed interest*.

(1) *Loan interest* is paid for the advance of money.

(2) *Imputed interest* is that portion of the value of the product attributed to the services of consumption-goods or of production-goods as distinguished from the services of land or labor.

An example of *loan interest* would be the \$450 your father pays each year on the \$7,500 he borrowed from the savings bank.¹ An example of *imputed interest* would be the \$600 a year that he "imputes" to the \$10,000 of his own funds he pays down on your home.² He might have kept it in his business but he did not. Hence in figuring the annual cost of his living quarters he must include 6% on the amount he paid on the home.

The rate of interest. — Interest is a price. Moreover, it is a competitive price; no one has a monopoly of loanable funds. Hence the rate of interest or the price of loanable funds is fixed in the same way as any other competitive price.

The forces of demand on one side contend against the forces of supply on the other; the result is the price or rate of interest at a given time; the theory of normal value or normal price applies to the determination of this as to all

¹Page 471. ²Ibid.

competitive prices. In the long run the rate of interest will be fixed at the point where the marginal lender's "cost of production," that is, his sacrifice in abstaining from present consumption just equals the marginal borrower's estimate of the utility of the capital goods compared with the alternative uses he might make of the money. (See pp. 261-263.)

At any given time or place, certain practical factors enter into the determination of the rate of interest.

1. *The element of risk.* For example, United States government securities, because they are safe, bear a low rate of interest while the bonds of many industrial enterprises because they are more speculative, bear a high rate of interest.

2. *Fixity of investment.* Short term liquid securities bear a low rate of interest while long term farm loans bear a high rate of interest.

3. *Differences in locality.* Interest rates in New York may be low because of relative abundance of loanable funds while they are high in Oregon because of relative scarcity of loanable funds and greater risk.

4. *Differences in industries.* The United States Steel Corporation or the American Telephone and Telegraph Company can borrow money at low rates of interest while little known, speculative oil companies must pay a high rate of interest.

5. *Differences in time.* In war time rates will be high; in time of peace they will be low; in that part of the business cycle in which prosperity is approaching its climax, interest rates will be high; in the period of depression interest rates will be low.

The importance of the interest rate. — The prevailing rate of interest is of much greater practical importance than any theoretical discussion would indicate.

Values or prices are controlled by it. For example, we have seen that the price of your home was \$17,500; your father is paying 6% interest on the \$7,500 note he gave the savings bank in order to purchase it. Let us take an extreme case to illustrate the effect of a change in the interest rate upon the value or price of your home.

Suppose the interest rate should double. What effect do you suppose that would have on the value of your home? It would cut it in two. Your home would be worth only \$8,750. If, on the other hand, the interest rate should be halved and become 3% instead of 6%, the value of your home would double; it would be worth \$35,000.

You ask how that can be. Simply this. The value of your home is merely the capitalized value of the income it can command. If it would rent for \$2,000 per year, and taxes, depreciation, and insurance cost \$950, the net income would be \$1,050. If the prevailing rate of interest is 6%, one per cent would be \$175, and 100% would be \$17,500; if the prevailing rate of interest is 12%, then one per cent would be \$87.50 and 100% would be \$8,750; if the prevailing rate of interest is 3%, then one per cent would be \$350 and 100% would be \$35,000.

Not only does the prevailing rate of interest thus control the price of homes, but it is equally potent in affecting the price of securities, such as stocks and bonds. As the "price of money," or the interest rate, goes down, the price of income-bearing securities goes up. As the price of money or the interest rate goes up the price of income-bearing securities goes down. If the ruling rate of interest on "prime" commercial paper is $4\frac{1}{2}\%$, the price of $4\frac{1}{2}\%$ United States bonds will be above par; but if the ruling rate of interest is 6%, the price of $4\frac{1}{2}\%$ United States bonds will be below par.¹

¹See Figure 108, page 480.

Theories of interest. — In connection with interest two questions are asked :

1. Why are people willing to pay interest ?
2. What determines the rate of interest ?

To answer these questions many theories have been advanced ; Böhm-Bawerk in his *Capital and Interest*¹ classifies these theories as follows :

1. *Productivity theories.* — According to these theories, interest is the price of the productive services of capital. He names as the chief exponents of this group Malthus, J. B. Say, Von Thünen, Carey, Leroy-Beaulieu.

2. *Use theories.* — The line of division between this and the former group is not clear. According to these theories, interest is the price paid for the use of productive capital. The founder of the theory was J. B. Say ; German writers have elaborated it ; the best known of these writers are Schäffle, Knies, and Menger.

3. *Abstinence theories.* — According to these theories, interest is the payment made for abstaining from the unproductive use of wealth. The leading exponents of these theories are Senior, Cairnes, and Cherbuliez. The following diagram illustrates the difference between the present estimate of present goods and the present estimate of future goods.²

4. *Labor theories.* — According to these theories, interest is the wage of the capitalist's labor, which in some statements means the labor which created the capital. The chief exponents of these theories are James Mill, Rodbertus, and Schäffle.

5. *Exploitation theories.* — According to these theories, interest arises from the exploitation from the laborer of the wealth which he alone produces. Rodbertus and Marx are the chief exponents of these theories.

¹ Böhm-Bawerk. *Capital and Interest*. Macmillan.

² Figure 107, page 479.

Which is the true theory? — Is any of these theories true? Can all of them be true? Pilate once asked "What is truth?" The philosophical answer to that question you may sometime work out. In the meantime, it will suffice to say that each of these theories is "true" in so far as it helps to explain interest.

Some economists hold that none of these theories completely explains interest. For example, take the productivity theories; they state that capital is productive and hence it bears interest. Of what is it productive? When capital goods are used in a process of production the resulting products are most unlike the capital goods producing them. Machines make watches, automobiles, shoes, cloth, etc.; they do not make machines like themselves. Labor applied to capital goods is more productive than when acting alone.

The value of the product is greater than the value of the labor and capital goods employed; that difference in value is interest.

To some economists the marginal productivity theory is a satisfactory explanation of interest from the standpoint of demand, but they think that it fails to explain interest from the standpoint of supply.

The Austrian or *agio* theory of interest. — Böhm-Bawerk, an Austrian university professor, has elaborated a theory of interest that appeals to many economists because, in their opinion, it explains interest from the standpoint of both demand and supply.

This is called the "*agio*" theory — Italian "*aggio*," meaning discount — because, according to this theory, interest is explained by the fact that *future goods are discounted in terms of present goods*. Which would you prefer to take a week's vacation this week or six months hence? Present vacations are preferable to future ones, are they

not? If you voluntarily give up a week's vacation now so that some one else can take it now and postpone your holiday for six months you feel entitled to ten days' outing six months hence. The extra three days would be interest.

Similarly, in the relations of borrower and lender, we can see that because future goods are less valuable than present goods they are at a discount in terms of present goods. The borrower must pay the difference; this difference is interest.

On the other hand, you as a producer are willing to pay interest on a productive loan because, with the additional capital goods thus made available for your use now you think that you can in time make more than the interest will cost you.

Both saving (supply) and productivity (demand) are due to differences in value between present and future goods, and the rate of interest or discount tends to settle at the point where the marginal saver's estimate of the sacrifice involved in waiting equals the productivity of the marginal producer.

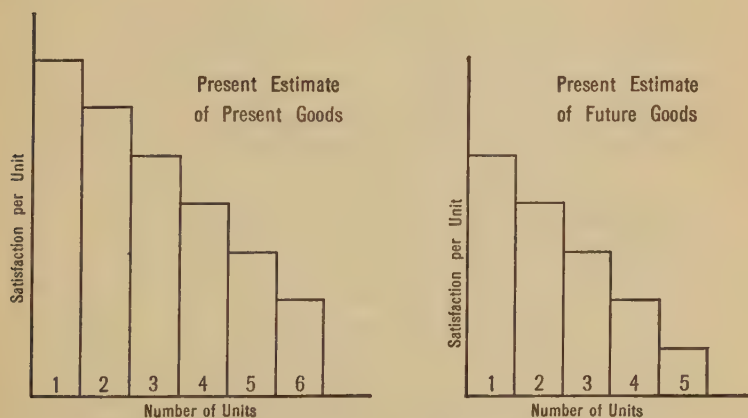
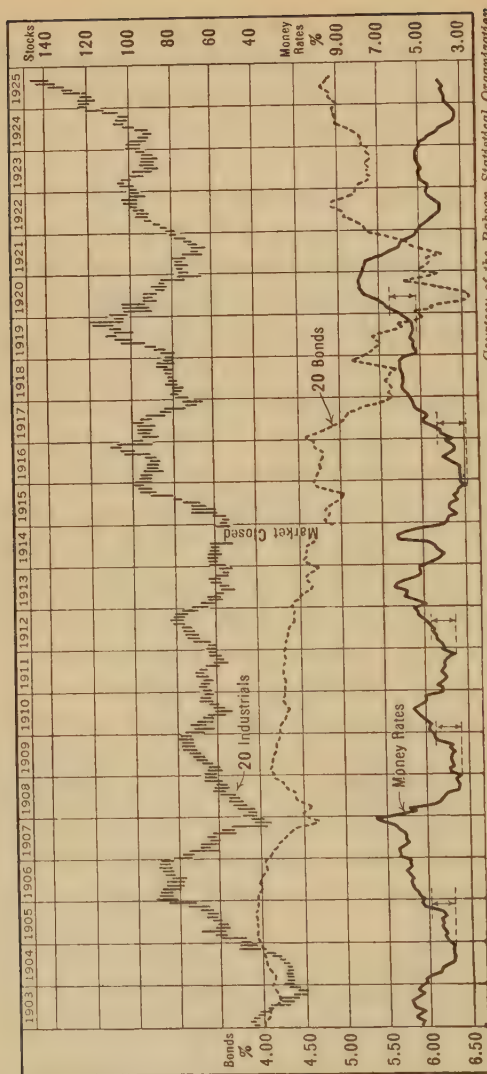


FIGURE 107. COMPARATIVE ESTIMATE OF PRESENT AND OF FUTURE GOODS



Courtesy of the Babson Statistical Organization

FIGURE 108. MONEY RATES, BONDS, AND STOCKS,
1903-1925

How do we answer the two questions? — In this book, the question “Why are people willing to pay interest?” is answered by a simple form of use theory; the question “What determines the rate of interest?” by the theory of normal value or normal price.

To our surprise, we find that the same conclusions can be arrived at by applying the marginal productivity theory and the Austrian or “agio” theory. According to these theories the price of any factor of production tends to equal the value of the marginal product of the entire supply of that agent. Hence, if savings are small in quantity, it is scarcity of capital goods that is the limiting factor, and, consequently, capital goods are relatively more important; the various forms of capital goods can be produced by man; and this involves saving and waiting; and the marginal saver’s estimate of the value of his services in sacrificing present consumption to the future will determine the price the capitalists will demand, while the value placed on present capital goods by the marginal borrower will determine the price producers are willing to pay.

Therefore, in the words we have just used in giving the conclusions of the Austrian theory “the rate of interest or discount tends to settle at the point where the marginal saver’s estimate of the sacrifice involved in waiting equals the productivity of the marginal producer.”

This is practically what we have already said in applying the theory of normal value in explanation of the rate of interest, although it is not phrased in the identical words (page 475).

Quotations of the price of money. — Below is presented the quotations of the interest rates for various kinds of loans in New York for July 22, 1926. They are taken from the *Herald Tribune* of July 23, 1926.

MONEY AND CREDIT

CALL LOANS

Renewals	4	Last	4
High	4	Previous close	4
Low	4	Last year	4

TIME LOANS

	MIXED	INDUSTRIAL
Sixty days	$4\frac{3}{8}$ @ $4\frac{1}{4}$	$4\frac{3}{8}$ @ $4\frac{1}{4}$
Ninety days	$4\frac{1}{2}$ @ $4\frac{5}{8}$	$4\frac{1}{2}$ @ $4\frac{5}{8}$
Four to six months	$4\frac{5}{8}$ @ $4\frac{3}{4}$	$4\frac{5}{8}$ @ $4\frac{3}{4}$

COMMERCIAL PAPER

Best names, four to six months	$4\frac{1}{4}$ @ —
Other names, four to six months	$4\frac{1}{2}$ @ —
Exceptional names and short maturities	4 @ —

BANKERS' ACCEPTANCES

Thirty days	$3\frac{1}{4}$ @ 3
Sixty days	$3\frac{3}{8}$ @ 3
Ninety days	$3\frac{1}{2}$ @ 3
Four months	$3\frac{1}{2}$ @ 3
Five months	$3\frac{5}{8}$ @ 3
Six months	$3\frac{3}{4}$ @ 3
Call loans	$4\frac{1}{2}$ @ —

FEDERAL RESERVE BANK REDISCOUNTS

	COMMER- CIAL PAPER	GOVERN- MENT OBLIGA- TIONS
Fifteen days	$3\frac{1}{2}$	$3\frac{1}{2}$
Ninety days	$3\frac{1}{2}$	$3\frac{1}{2}$

LONDON MONEY

	YESTERDAY	PREVIOUS DAY
Call loans	$3\frac{3}{8}$ @ —	$3\frac{7}{8}$ @ —
Short loans	$4\frac{5}{16}$ @ $4\frac{3}{8}$	$4\frac{5}{16}$ @ —
Three months' bills	$4\frac{1}{4}$ @ $4\frac{5}{16}$	$4\frac{1}{8}$ @ —

NEW YORK CLEARING HOUSE STATEMENT

	YESTERDAY	YEAR AGO
Yesterday	\$868,000,000	\$893,000,000
Balances	89,000,000	83,000,000
Federal Reserve Bank	80,000,000	73,000,000

PRECIOUS METALS

	YESTERDAY	PREVIOUS DAY
Gold (London)	84s 10½d	84s 10½d
Silver (London)	29½d	29½d
Silver (New York)	64½c	64½c
Mexican dollars	49½c	49c

II. PROFITS

Why are men in business? — There is an old saying to the effect that men are not in business for their health; in the parlance of everyday life, they are in business to make money.

We shall see that the guild socialists object to “production for profit instead of for use.”¹ This attack upon present-day business is misdirected; the enterpriser under modern economic conditions, even if he had the desire to reap a monetary reward without rendering to consumers any service could not accomplish his selfish wish.

How has the most outstanding “captain of industry” of the day built up his immense business and acquired the largest income in the country? He has done it by creating millions of inexpensive automobiles; these automobiles are not for his own use but for the service, the use of many million of his fellowmen.

Men are in business to make money; Henry Ford profits by manufacturing the most popular car in the world. True. But he profits in doing this because his cars are within the means of many, many people. From his point of view, the cars are manufactured “for profit”; from the point of view of the purchasers of the cars, they are manufactured “for use.”

We can say, and speak truly, that under our present economic régime, *production is for use*. We can say, and

¹ Page 544.

speak truly, that under our present economic régime, *production is for profit*. And the two statements are not contradictory; they supplement each other; both are true.

What are profits? — The answers made by economists, from Adam Smith down to the present have not all agreed with each other. Adam Smith would confine the word to what modern economists term “wages of management”; Malthus divides “the gross profits of capital independent of monopoly” into (1) “net profits” or “interest” and (2) “the profits of industry, skill and enterprise”; John Stuart Mill treats profits as including the whole of the gain of the capitalist whether due to the mere possession of capital, or to that and the performance of labor and the undertaking of risks, and F. A. Walker desires to apply the term “profits” only to that portion of the entrepreneur’s gain which is left over after deducting interest on all the capital he employs, whether it belongs to himself or another.

In practical life the term profits is used indifferently in three senses. It is applied —

1. To the total gain of an individual capitalist employing none but his own capital, and personally performing all necessary labor of management (Mill’s profits).

2. To the gains of a corporation or private firm in the case of which all labor of management is paid for by fixed salaries (Adam Smith’s true profit), and

3. To the net gain of an entrepreneur employing no capital of his own (F. A. Walker’s profit).

In this book, the term profit is used to mean what is left after the expenses of the business are paid. It arises from risk bearing and from management. In a modern corporation, the risk is borne by the stockholders and the management is divided among the board of directors and paid officials.

The nature of profits. — The hope of profits is the incentive that leads the enterpriser to risk his capital funds and give his time to the management of a business undertaking. He is under no compulsion to jeopardize his savings; he has the alternative of loaning his capital funds and receiving interest; that is much safer than assuming the obligations that rest upon the responsible head of a business.

What are these risks?

First. Most production is for the market and not on order. A shoe factory does not turn out custom-made shoes. Under modern methods shoes have become standardized; machine-made goods are alike; they are produced in enormous quantities and hence at reduced cost and with the expectation that purchasers will buy them; but there is no certainty about it; the public may and the public may not purchase. That is one of the risks assumed by the entrepreneur; he produces goods in anticipation of demand.

Second. The process of production in itself involves time and accidents with resulting loss are always possible; the entrepreneur assumes the risk of accidents.

Third. The entrepreneur enters into contract to pay rent to the owner of land, wages to laborers, interest for borrowed capital funds, and he pays taxes to the government. These payments constitute his costs of production. The entrepreneur assumes the risk of market fluctuations that may increase his costs of production.

Fourth. The entrepreneur cannot be certain of the price his commodity will command. Most businesses are competitive; the entrepreneur must meet the price of his competitors; if that price is not high enough to cover his costs of production, it will mean to him loss instead of profit.

Profits, then, are a payment for the assumption by the entrepreneur of the management and the risks of the enterprise.

However, if we accept the usage of those economists who make a special category of the "wages of management," that would leave only risk bearing as the function of the entrepreneur; in the corporation, which, as we know, dominates business to-day, that function is performed by the stockholders, who are capitalists and not entrepreneurs. On the whole, it seems better, in general, to say that profits are paid for management and for risk bearing.

$$\left[\begin{array}{c} \text{Differential} \\ \text{or} \\ \text{Pure} \\ \text{Profits} \end{array} \right] = \left[\begin{array}{c} \text{Gross} \\ \text{Profits} \end{array} \right] - \left[\begin{array}{c} \text{Entrepreneur's} \\ \text{Interest,} \\ \text{Rent and,} \\ \text{possibly,} \\ \text{Wages of} \\ \text{Management} \end{array} \right] + \left[\begin{array}{c} \text{Replacement} \\ \text{Fund} \\ \text{Surplus} \\ \text{Fund} \end{array} \right] + \left[\begin{array}{c} \text{Monopoly Gains} \\ \text{"Conjunctural"} \\ \text{Gains} \end{array} \right]$$

"Conjunctural" gains accrue to fortunate entrepreneurs through no planning on their part, *e.g.*, the unexpected gains that come to dealers in umbrellas when a heavy rain mars an outdoor celebration.

Kinds of profits. — Profits may be (1) monopoly profits, or they may be (2) competitive profits.

1. *Monopoly profits* do not particularly concern us at this point; they accrue in accordance with the law of monopoly price, which, we recall, is fixed at the point of the largest net return.

2. *Competitive profits*, it is, that are particularly discussed in this chapter.

Again, profits may be (3) gross profits, or (4) pure profits.

3. *Gross profits* include all of the gains made by entrepreneurs in the conduct of their business. They may include income from capital funds invested in the business by the entrepreneur. In the illustration given in Chapter XIX,¹ we saw that the "balance" of "gross profits" was \$2,300, but we split up that sum into various items such

¹ Page 422.

as rent \$250, and interest on capital invested \$125, and concluded that only \$1,375 can be called profits.

4. *Pure profits* are any surplus earned by the entrepreneur above the interest on his investment of his own capital funds and possibly the wages of management. It is pure profits that we are discussing in this chapter.

Characteristics of pure profits. — 1. We have already seen that the entrepreneur assumes the risks of the enterprise; by the assumption of these risks he earns his income; hence *pure profits are an earned income*.

2. Entrepreneurs are in competition against each other; *this competition tends to eliminate pure profits*; but inasmuch as competition is not perfect some entrepreneurs enjoy pure profits and others do not.

3. *Pure profits are not a part of price*. That may sound strange, but it is true. High profits do not make high prices, but high prices make high profits. The fact that an entrepreneur makes in a competitive undertaking large profits, is not responsible for high prices.

A competitive price is controlled by the cost of production of the marginal producer and it just covers that cost; consequently, the marginal producer enjoys no pure profits; his more successful or more fortunate competitors, receiving the same price that he does, do enjoy pure profits; *but he, not they, fixes the price*; hence, the pure profits of the competitors of the marginal producer do not enter into price.

4. *Pure profits are a differential gain*. Successful entrepreneurs receive pure profits because of their ability as managers or organizers; their gain is due to this difference between them and the no-profit entrepreneurs.

5. *Pure profits are a residual gain*. Inasmuch as the entrepreneur must meet all of the contractual obligations that he assumes toward the other factors of production

before he can claim for himself any part of the value of the product, it must be manifest that he is properly called *the residual claimant* on the value of the product.

The following diagram illustrates the fact that some establishments receive no profits, others fair profits, and still others may enjoy large profits, although each receives the same price as his competitors. The price is fixed to cover the cost of production of the marginal producer.

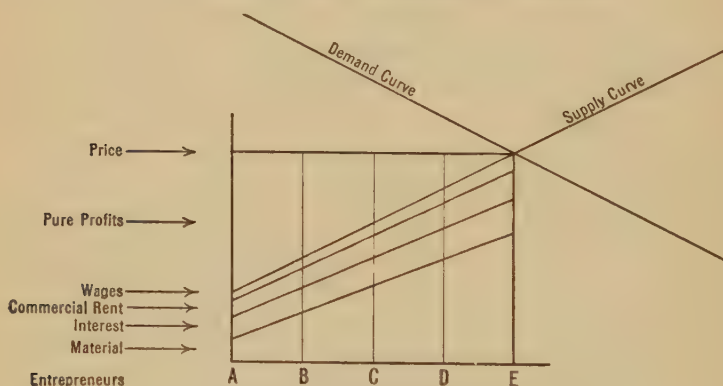


FIGURE 109. PROFITS NOT A PART OF PRICE

The amount of profits.—Up to this point our discussion of profits has been analytical, theoretical, and abstract. Let us now ask some very practical questions concerning profits.

What do profits amount to? Up to the year 1909, it seems we have no exact information of the amount of profits earned in this country; since 1909 we have the figures reported by the corporations to the Commissioner of Internal Revenue. Most of the business of the country is carried on by corporations except in agriculture, therefore these figures can be considered truly representative.

The profits of the corporations grew from $3\frac{1}{4}$ billions in 1909 to $4\frac{1}{3}$ billions of dollars in 1913; in 1916 profits were

8 $\frac{3}{4}$ billions; in 1917 they were 10 $\frac{3}{4}$ billions; and in 1921 profits amounted to 7 $\frac{1}{2}$ billions of dollars. George E. Roberts estimates that in 1900 profits did not exceed 2 $\frac{1}{2}$ billions, and he makes the startling statement that in twenty years money profits have tripled in nominal terms.

Further analysis reveals the fact that the net earnings of manufacturing establishments increased more rapidly than those of railroads and public utilities. The net earnings of manufacturing establishments increased more than 50% between 1909 and 1913, from 1913 to 1917 they increased over 180%; while the net returns for railroads and public utilities increased less than 25% between 1909 and 1913, and 30% between 1916 and 1917.

The Federal income tax enables us to ascertain reliable statistics concerning individual incomes. For the years 1916, 1917, and 1918 individual incomes amounted to about 20 billions of dollars; of this over 13 billions consisted of business profits.

The rate of profits. — While the absolute amount of profits is a matter of public interest, *the rate of profits* is of even greater importance.

TABLE 49

PROFITS OF NATIONAL BANKS

DECADE	AVERAGE CAPITAL	AVERAGE SURPLUS	AVERAGE NET EARNINGS	% NET EARNINGS TO CAPITAL AND SURPLUS
	\$	\$	\$	%
1870-1879	471,035,503	116,005,230	49,166,295	8.4
1880-1889	509,732,723	146,840,476	53,941,608	8.2
1890-1899	649,409,548	237,183,228	57,512,284	6.5
1900-1909	752,574,316	394,800,356	113,363,341	9.88
1910-1919	1,054,894,700	735,444,406	170,211,711	9.50
Year 1920	1,224,166,000	986,384,000	282,083,000	13.00

The most complete information available pertains to national banks. From the reports of the Comptroller of the Currency the following facts are elicited as to the average rate of net earnings of our national banks.

The table on page 489 is illuminating. It shows that for the decade 1890-1899 the profits of national banks were not much above the ruling rate of interest, but that for the last twenty years it has been above it, especially in 1920.

Averages are deceptive. How did individual banks fare? The following table shows the highest and lowest percentages earned on capital and surplus by all national banks.

TABLE 50
PERCENTAGE EARNED BY NATIONAL BANKS

DECADE	HIGHEST	LOWEST
1870-1879	10.9	5.1
1880-1889	9.5	6.7
1890-1899	8.9	5.0
1900-1909	10.5	8.2
1910-1920	12.1	7.08

In the field of railroads and public utilities, it is stated on reliable authority that profits have not exceeded the prevailing rate of interest. Since the nineties these corporations have been subject to regulation and they have not been allowed to earn an excessive rate of profit.

In the field of manufactures the data is not so reliable as in that of railroads and public utilities. We have already seen that the rate of earnings of ¹ the United States Steel Corporation has steadily decreased. Its net for stock was as follows:

1902-1907	1908-1913	1914-1919	1920-1925
17.52%	14.25%	14.14%	8.07%

These percentages are based on gross income.

¹ Page 424.

The war period was a halcyon time for "war profits." The industries most favored by the war were manufacturing, mercantile, and mining corporations. The profits of mining and mercantile corporations increased from 2 billions in 1913 to 5 billions in 1916 and $6\frac{4}{5}$ billions in 1917. 31,000 corporations reported net income in 1917 of $4\frac{3}{4}$ billions, an average of over 21% on the capital invested; and after paying their excess profits tax they still had almost 17% on invested capital.

But hasty conclusions should not be drawn from any of these figures as to profits; it should be remembered that the earnings are stated in terms of inflated money while the capitalization is in terms of pre-war capital investment. If a corporation had \$100,000 invested in plant equipment before the war and it made \$20,000 in 1918 or 1919, it had 20% profit if calculated on the pre-war investment, but probably not over 10% if investment and profit were valued by the same standard.

Another thing, too, is to be remembered: these profits of 1917-1919 were largely "paper profits" that were wiped out by inventory shrinkage and other losses that came in subsequent years with the fall of prices.

Profits as "value added."—The usual method of computing profits is to ascertain the percentage of profits to capital invested in the business. However, merchants frequently measure profits as a percentage of gross sales and manufacturers sometimes state their profits as a percentage, not of gross sales but of "value added by manufacture." This item is smaller than gross sales by allowance of cost of materials, etc. Professor David Friday of the University of Michigan, in his *Profits, Wages, and Prices*, presents an interesting and valuable study undertaken from this point of view. It is for one pre-war year and for the years 1916-1919, as follows.

TABLE 51

DISTRIBUTION OF VALUE ADDED BY MINING, MANUFACTURING, RAILROAD,
AND PUBLIC UTILITY CORPORATIONS

1913-1919

(In Percentages)

YEAR	TOTAL VALUE ADDED	WAGES	TAXES	INTEREST	DIVIDENDS	SURPLUS LESS DEFICIT
1913	100.0	63.9	3.8	8.9	18.5	4.9
1916	100.0	56.6	4.0	6.0	14.3	19.1
1917	100.0	54.3	11.5	5.8	15.0	13.4
1918	100.0	61.0	13.7	5.4	11.7	8.2
1919	100.0	70.2	9.0	5.0	11.1	4.7

These figures show that during each of these years labor received more than half of the value added by mining, manufacturing, railroad, and public utility corporations, and that in one year, 1919, wages absorbed 70% of the total. *The normal share of labor would seem to be three times the portion of interest and dividends together.*

The share of interest fell from 8.9% in 1913 to 5% in 1919, dividends exceeded interest each year but declined at about the same ratio, from 18.5% in 1913 to 11.1% in 1919. The amount of earnings turned back into business as surplus was 19.1% in 1916 but only 4.7% in 1919.

Ford Motor Company profits.¹—Ford's profit per car in the five periods 1920-1924 fluctuated from \$42 to \$81. Tractors and Lincolns are included in the output. It is significant that in 1924, with the Model T touring car selling for \$290, the company earned slightly more per car than in 1920, when the car sold for \$440. The table on page 493 shows production, profits, profit per unit and selling price of the Model T touring car.

Of course the profits from the enormous parts business

¹ *Barron's*, June 7, 1926.

TABLE 52

	OUTPUT UNITS	PROFITS	PROFIT PER UNIT	PRICE MODEL T TOURING CAR
1924 (to Nov. 12) . .	*1,897,676	\$86,978,198	\$45	\$290
1923	2,200,682	93,030,282	42	295
1922	1,425,823	115,797,361	81	384
1921	1,052,968	64,804,262	61	415
1920	1,145,943	50,007,386	43	440

* Estimated.

should for purposes of strict accuracy be reckoned in, but the figures are not available.

RATIOS OF MANUFACTURING NET

For the same five periods we show below the sales, profits, per cent net to sales, and profits per share on the \$17,264,500 stock :

TABLE 53

	SALES	PROFITS	%PROFITS TO SALES	NET PER SHARE
1924 (to Nov. 12) . .	\$750,905,928	\$86,978,198	11.5	\$503
1923	858,863,758	93,030,282	10.8	538
1922	608,341,082	115,797,361	19.0	670
1921	532,030,257	64,804,262	12.1	375
1920	644,830,550	50,007,386	7.7	289

It should be pointed out that the profits are after federal taxes. The jump in the profit percentage in 1922 is largely explained by the fact that federal taxes were only \$16,540,480 as compared with \$34,237,895 in 1921. Taxes for the other periods were: 1920, \$25,930,187; 1923, \$13,290,040; 1924, \$12,425,457.

Another equally important and illuminating investigation is the survey made by the National Bureau of Economic Research. Their table shows the division of the net value of the product of mines, factories, and land transportation between the earnings of employees and return for management and use of property.

TABLE 54

YEAR	PER CENT OF TOTAL PRODUCT GOING TO	
	Wages and Salaries	Management and Property
1909	68.7	31.3
1910	68.8	31.2
1911	72.3	27.7
1912	71.6	28.4
1913	72.0	28.0
1914	73.8	26.2
1915	71.5	28.5
1916	66.7	33.3
1917	68.9	31.1
1918	77.3	22.7

Wages and salaries include pensions, compensation for accidents, etc., and management and property include rental, royalties, interest, and dividends. After deduction of taxes the total product is divided into two shares.

The survey indicates that labor receives an even larger share of the industrial product than Professor Friday's table shows. It varies from 66% to 77% of the whole; the share of management and property varies from 22% to 33%.

Profits in individual establishments.—Not only is there variation in amount of profits in different kinds of businesses as well as variation in a given kind of business from year to year; but in a given kind of business there is variation in profits among the separate establishments.

An examination of the individual establishments in manufacturing or banking, for instance, reveals a remarkable degree of variation within the same year. Of fifteen shoe companies examined by the Federal Trade Commission two companies made profits in 1914 of 61% and 53% respectively, two others made losses of 6.8% and 4.7%; four earned more than 20%, two earned less than 5%; in 1915 two companies made 53% and 50%, four made a loss; two made less than 5%; the others ranged from 9% to 42%. According to the Federal Trade Commission 95% of all the beet sugar made in the United States from 1909 to 1914 was the product of twenty-nine companies. Of these, thirteen companies producing 14% of the product earned less than 5% on their investment; nine of them lost money. Sixteen companies producing 82% of the product earned over 5%; three earned from 6% to 9%, six of them from 9% to 16%, and the remaining seven earned over 16% profits.

Profits in farming.¹—We give below figures compiled by the Minnesota Farm Management Service of the State University, appearing in Service Notes No. 40. The figures are presented in a manner to show a comparison between the farm making the best showing and an average of all the others. The report is as follows:

“All the studies of farm income show a wide variation between different farms. Even in the same community where weather, soil and market conditions are quite uniform *some farmers make materially larger incomes than others*. This is not, however, a peculiar characteristic of farming. It is equally true of stores and factories, banks and railroads. *In any business there are certain methods and practices and certain types of organization that yield larger profits than others.* The manager who succeeds in combining these methods

¹ National City Bank of New York *Bulletin* for July, 1926.

and practices in his organization finds his success reflected in increased profits.

"A farm in Cottonwood County is used to illustrate profitable practices on a corn, beef-cattle and hog farm. This farm consists of 191 acres of which 131 are in crops. In soil and topography it is fairly typical of the county. In the following table is presented a comparison between the average income from this farm for the years 1923 and 1924 and the average income from all the farms on the statistical route in which it is included."

	THIS FARM	ROUTE AVERAGE
RECEIPTS:		
Cattle	\$1,894	\$1,124
Swine	1,674	978
Poultry	438	269
Other livestock	42	112
Crops	1,147	648
Miscellaneous	570	127
Total	\$5,765	\$3,258

	THIS FARM	ROUTE AVERAGE
EXPENSES:		
Labor	\$ 71	\$ 69
Livestock expense	719	525
Crop expense	282	156
Bldgs. and machinery	240	464
Unpaid family labor	614	326
Other	584	388
	\$2,510	\$1,928
Farm Income	\$3,255	\$1,330
Interest at 5 per cent	1,646*	832
Farm labor income	\$1,609	\$498

On this farm the entire acreage was owned by the operator ; on the other farms about one half was rented.

Although this farm is no larger than the average for that district, the operator received more than three times as much for his labor and management as did the average of the group.

There seems to be no ordinary or usual rate of profit in a given industry ; the returns that can be expected from ownership of an industrial enterprise are uncertain and indefinite.

The first law of profits. — The preceding discussion of the rate of profits enables us to formulate the law of profits. George E. Roberts in his *Profits and Other Incomes* thus states it: "*In every line of business, among competing establishments under normal conditions, some will be found making very good profits, and some fair profits, while others will be making no profit, and some will be losing money and passing out of business.*"

The natural query suggests itself : What is the explanation of this startling variation in the rate of profit? It is not, says Mr. Roberts, that some establishments get higher prices than others, for market prices upon the same kind of goods at a given time vary but little ; it is rather because *there are variations in their costs*. And he continues, "Some of the establishments are more eligibly located than others as regards raw material or markets ; some have more efficient equipment than others ; some are more effectively organized than others in the arrangement of the plant and management of the working force ; some have a more effective selling force ; and some perhaps are more skillful in buying or in giving credits."

The variation in efficiency of management between the least efficient and the most efficient establishments is stated by competent engineers to be as great as 100%.

The cause of fluctuation of profits. — We have already learned ¹ that modern business is subject to business cycles of depression, recovery, prosperity, financial strain, and crisis. In boom times demand is great and every industrial plant is used to full capacity; output increases; and at first overhead costs of depreciation, management, taxes, and interest do not rise; then there follows great expansion of new plant accompanied by higher overhead costs; when confidence has been shaken and demand falls off, it is impossible to cut down these overhead charges and profits begin to fall. Wages always rise at the time of a business boom; but with higher wages labor often becomes less efficient and management, too, often becomes self-satisfied and inefficient. Interest rates and taxes tend to rise at such a time.

Mr. Roberts formulates the chief cause of fluctuation as follows: "*The chief cause of fluctuation in business profits is to be found in the variations in demand and production which characterize the different phases of the business cycle.*"

The second law of profits. — Some economists, recognizing that, in the long run, unless a given line of business is profitable entrepreneurs will avoid it, have formulated their observations into the law of "necessary profit": *Profits must be sufficient to keep the marginal entrepreneur from entering the best alternative employment.* (See p. 439.)

To what uses are profits put? — Much of the discontent with our present economic régime is due to a misunderstanding of what becomes of profits.

It is wrongly imagined that profits are all destined to go into the private coffers of a few rich and hence unscrupulous men. Those who hold that opinion overlook the effect that the corporate form of business exercises upon the ultimate disposition of profits. Take as an extreme example the

¹ Page 228.

shoe company mentioned in a previous section that earned in 1914 61% profits.

To whom did those profits belong? They belonged to the legal entity known as the corporation; they did not belong to the stockholders. One very important step stood between the stockholders and a 61% dividend. *The disposal of the earnings of that as of all corporations is lodged in the hands of the board of directors; until the board of directors has declared a dividend the earnings are not the property of the stockholders.*

After the results of a favorable year's business are known by a board of directors they may follow one of two courses:

1. They may pay out the earnings in dividends by voting the whole amount of the earnings, or

2. They may vote to pay part of the earnings in dividends and to retain the remainder in the business by adding it to surplus. As a matter of fact, whenever corporations are making large earnings a very substantial part is so retained as additional capital to be used in the enterprise.

And it is the corporations themselves that have provided the larger part of the capital needed in the expansion of modern industry. *American corporations ordinarily in times of peace retain more than one third of their profits as surplus and since 1915 they have retained nearly one half.*

But the whole of the other half does not go into the bank accounts of stockholders. Government has of recent years claimed its share before the stockholders could claim their share. State taxes on corporations are numerous. They include a tax on capital stock, corporation incomes taxes, and taxes on profits above a certain percentage. In 1917 state, local, and federal corporation taxes amounted to 26% of corporate income; in 1918 it was no less than 43%. These taxes still amount to from 20 to 25%. Thus it must

be clear that the income of government varies with the variation in earned profits. Here, then, are three uses to which earned corporate profits are devoted: (1) dividends, (2) surplus, and (3) taxes.

The following United States Treasury report shows the proportions of earned corporate income that went to dividends and to surplus for the years 1909-1919:

TABLE 55

ALL CORPORATIONS IN THE UNITED STATES REPORTING NET INCOME
(Thousands omitted)

YEAR	NET INCOME AFTER TAXES	DIVIDENDS PAID	SURPLUS REINVESTED
1909	3,125,481	2,125,481	1,000,000
1910	3,360,251	2,290,251	1,070,000
1911	3,213,706	2,225,685	988,021
1912	3,832,151	2,498,149	1,334,002
1913	4,339,551	2,871,435	1,468,116
1914	3,710,600	2,411,900	1,298,700
1915	5,184,400	2,594,700	2,589,700
1916	8,594,095	3,783,900	4,810,195
1917	8,587,914	4,651,900	3,936,014
1918	¹ 6,300,000	4,250,000	2,050,000
1919	¹ 6,700,000	3,900,000	2,800,000

¹ Estimated.

In 1909 one third and in 1916 more than one half of corporate earnings were turned back into productive industry in the form of surplus.

Another source of additional capital investment is the savings of people of large incomes. A study of the income tax returns shows that the larger the income the greater the proportion that is derived from dividends; for incomes of \$4,000 dividends are 35% and for those of \$50,000 or over more than 50% is derived from that source.

Now, fluctuations in profits must mean variations in

dividends and these fluctuations in turn cause wide differences in the savings of the well-to-do. Studies of the income tax returns enables us to say that the income of a man which averages \$50,000 per year will vary from year to year from \$30,000 to \$70,000. If he spends \$20,000 per year, with the smaller income his savings are \$10,000, while with the larger income his savings are \$50,000.

After a most careful study of the statistics, George E. Roberts states that it is safe to say that *not more than 25% of the large profits of the war and post-war years were spent by the stockholders of the corporations that earned them.* The remaining 75% were paid to government in taxes or saved and used for the purpose of paying debts, extending plants, or financing the war.

Mr. Roberts' conclusions concerning profits are thus summed up by him :

" It must be apparent from what has been said that profits are the very center and pivot of our present industrial situation.

(1) " People who have large incomes derive them mainly from profits.

(2) " Government is supported to an ever-increasing extent out of the income of industry.

(3) " Profits are the chief source of capital accumulation and they furnish the chief motive which induces men to undertake production.

(4) " The bondholder derives his income from the earnings of the enterpriser, and the rate of interest is determined, in large part, by the demand for capital on the part of those who expect to earn profits.

(5) " Since the growth of national production is influenced by our accumulation of capital, that, too, depends in considerable measure upon the size of profits.

(6) "*We can only understand the workings of our industrial system, therefore, as we understand the facts concerning profits and the causes and effects of their major fluctuations.*"

Summary of the theory of distribution. —

TABLE 56

	RENT	WAGES	INTEREST	PROFIT	TAXES
Earned		✓	✓	✓	✓
Not earned	✓				
Part of price . . .		✓	✓		✓
Not part of price .	✓			✓	
Differential . . .	✓			✓	
Not differential . .		✓	✓		✓
Residual gain . . .				✓	
Not residual gain .	✓	✓	✓		✓

EXERCISES AND PROBLEMS

I

1. Why do people borrow?
2. What is a consumption loan? Give an example different from that in the book.
3. What is a production loan? Give an example different from that in the book.
4. Why do people lend?
5. What is borrowed and what is loaned? What mistake is often made in answering this question?
6. What is interest? How can "interest" be "rent"?
7. What does a banker mean by using the expression "the price of money"?
8. State the marginal productivity theory of interest, the abstinence theory of interest, the Austrian theory of interest, the socialists' theory of interest.
9. How is the rate of interest determined?

10. Distinguish between gross interest and pure interest ; between loan interest and imputed interest.
11. Why is the interest rate important?
12. Explain all the terms used in the "quotations of the price of money."
13. Is production to-day "for profit" or "for use"?
14. Enumerate and explain the risks undertaken by the entrepreneur.
15. Distinguish between gross profits and pure profits.
16. Enumerate the five characteristics of pure profits.
17. How do profits compare in amount to-day with what they were in 1909? 1913? 1916? 1917? 1921?
18. How has the rate of profit earned by national banks compared with the ruling rate of interest?
19. What has been the tendency of the rate of profit earned by the United States Steel Corporation since its organization in 1902?
20. What effect did the war have upon the rate of profit earned by American corporations? What kind of corporations benefited most by the war? Answer in detail.
21. What are "paper profits"? Why did they disappear?
22. What is shown by Professor Friday's table? By the table prepared by the National Bureau of Economic Research?
23. What is the most outstanding fact revealed by a study of the rate of profits of individual establishments?
24. State the first law of profits. Why do some establishments earn profits and others not?
25. State the second law of profits.
26. What is the connection between the fluctuations of profits and business cycles?
27. Do all profits go into the pockets of stockholders? What other uses may be made of them?

II

1. Is the amount which any manufacturer receives as profits taken out of wages paid the men?

2. What does it mean to say, "The money rate is an index to trade conditions"?

3. How far, if at all, is the income derived from the following to be called interest: an apartment block; a pawnbroker's loan; a United States 2% bond; a Pennsylvania Railroad bond; a piano; an automobile truck?

4. "I am willing to concede that interest ought to be paid to a man who saves out of a small income by self-denial, but I have no patience with the paying interest to a capitalist whose accumulations have cost him no sacrifice." Do you agree? Can the distinction between the two be made practically?

5. A real estate firm buys an undeveloped piece of land near a large city for \$10,000. It spends \$5,000 for improving and advertising this land. It then sells the land in small lots for \$50,000. Is the \$35,000 thus gained to be classified as profits?

6. In problem 5 the owner of an adjoining piece of property finds that his land has doubled in value. Is this gain a true profit to him? Give reasons for your answer.

7. Unusual profits are the most certain influence for the production of more goods. Explain.

8. In normal times competition may be trusted to eliminate excess profits. Explain.

9. Large profits by individual dealers are not necessarily proof of exorbitant charges, but are more likely to signify efficient management and low costs. Explain.

III

1. (a) What is interest? (b) What are the reasons for differences in the rates of interest?

2. Many fear that financial unrest will follow the war, partly because of capital destroyed during the war and partly because of the unstable distribution of capital which will then prevail. Explain this statement, giving illustrations.

3. In 1900 bonds yielding 4% were sold at par. To-day bonds yielding 6% are selling below par. Account for the change.

4. Discuss the effect of a great war on the rate of interest.

5. In good years many sound industrial enterprises earn dividends of 15% to 20% on the capital invested. Considering that savings banks and the better class of railway bonds pay about 4%, give three reasons why capital is not more readily obtained for industrial purposes.

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CHAPTER XXIII

THE LABOR PROBLEM

INTRODUCTION

What is the labor problem? — In discussing the labor problem we enter an arena in which the air is surcharged with the electricity of discordant views, bitter denunciation, and general misunderstanding. Although we have found that from the standpoint of economics the long-time interests of the various factors of production are not only not antagonistic but that they are identical, yet we all know that industry is constantly being rocked to its foundations by contests, conflicts, strife, and war.

What are men fighting about?

In 1920 over 26 millions of human beings in this country were employed in gainful pursuits; is the "labor problem" concerned with these 26 millions? Yes, and no.

We have seen that the laborers or workers are divided into non-competing groups; is the "labor problem" concerned with these groups? Yes, and no.

In dealing with the "labor problem," we are not concerned directly with all of those employed in gainful labor, nor are we concerned with all of the groups in our pyramid of non-competing groups. Roughly speaking, those who receive salaries as distinct from those who receive "wages" do not enter our discussion; it is related chiefly to those who carry home a pay envelope weekly or fortnightly.

Is the "labor problem" concerned with organized labor? Yes, and no.

The labor "problem," strictly speaking, is not one problem but a bundle of problems. Some of these problems touch one group, some touch another; none includes all the classes we have included in the term "labor." The "labor problem" requires us to minimize the meaning of the word "labor," confining it, generally speaking, to the three lower non-competing groups, consisting of the unskilled, the semi-skilled, and the skilled workers.

It is true, we shall study labor organizations, their aims and activities; but, as we shall soon see, only a comparatively small proportion of American workers are members of these organizations; for that reason, the problem of labor organizations is not the only labor problem, although it is in itself a very important one.

The answer to the question propounded in this section is that the "labor problem" comprises many unsettled and bitterly disputed topics relative to the economic conditions of the great majority of our more than 26 millions of workers.

LABOR ORGANIZATIONS

Collective bargaining. — The laborer has something to sell, viz. his services; the employer is in the market for these services; it is impossible for the former to get employment or for the latter to secure the services unless they can come to an agreement as to the terms of the labor contract. When a single laborer stands in the presence of an employer to discuss rate of wages, hours of work, or conditions of work, he is not on a basis of equality with the employer; the employer can get along without him much more easily than he can get along without the employer. The employer has him in his power.

To restore the balance and to place the two parties on an equal footing, collective bargaining through labor organizations came into existence. Under the conditions which exist because of the advent of collective bargaining, if the single laborer speaks, not for himself alone but for the employer's entire labor force, he will receive a respectful hearing and his views will at least be considered.

The development of labor organizations. — Labor organizations have existed in this country for over a century. Before 1820, shoe-making and printing only were organized. Between 1825 and 1837, many unions were formed and attempts were made to unite separate unions in larger national bodies. Early labor conferences declared for an eight-hour day, restriction of immigration, reduction of the tariff, a relatively small standing army, and the granting of public land only to actual settlers.

It was not until after 1860 that permanent national unions were established, and not until 1869 that the Knights of Labor, the first fairly permanent national organization, was created. The early unions were organized by trades; the carpenters, the plumbers, and the bricklayers had their own separate organizations.

The Knights of Labor abolished trade distinctions and were willing to admit any one except bankers, lawyers, professional gamblers, and employees engaged in the manufacture and sale of intoxicating liquor. Their method was to take part in politics. They reached their greatest numbers about 1886 when they claimed a membership of 1,000,000; since the panic of 1893 their place has been taken by the American Federation of Labor, which was founded in 1881.

Most American unions, except the Railway Brotherhoods, the Amalgamated Clothing Workers of America, the Amalgamated Textile Workers, and the Industrial Workers of the

World, are affiliated with the American Federation of Labor. An individual laborer cannot join this organization, as it is a federation of trade and labor unions; it frowns upon political action and favors the strike and boycott.

The Industrial Workers of the World favor the union of all the workers in an industry. One of their weapons is *sabotage*. They strike on the job, without quitting work, by indulging in such practices as destroying machinery and spoiling the product.

There are three distinct types of labor organizations, (1) the *Trade Union*, representing a combination of wage-earners in a single trade or two or three closely related trades; (2) the *Industrial Union*, composed of all kinds of wage-earners working in a given industry; and (3) the mixed *Labor Union*, made up of wage-earners from many trades and many industries.

It is difficult to say exactly how many laborers are, at any one time, members of labor organizations; the numbers change frequently; when times are good, many drop their membership; when they are bad, more workers feel the need of mutual support and keep up their dues. Professor Ely states that in 1920 the American Federation of Labor had grown to 4,000,000 and that the aggregate membership of American trade unions was between five and six millions. The figures given by the National Bureau of Economic Research are slightly different.¹

Do labor organizations form a monopoly? — The weakness of an individual laborer, we have seen, lies chiefly in his inability to bargain advantageously for the sale of his services; labor organizations, in large measure, remedy this defect by placing the laborer, through collective bargaining, on an equality with the employer. The vast aggregation,

¹ Tables 57 and 58.

TABLE 57

Table Showing Per Cent of Each Industry Organized

THE per cent of wage-earners organized in major divisions of industry is shown in the following table, for the years 1920 and 1910:

Division of Industry	Per Cent Organized	
	1920	1910
Extraction of Minerals	41.0	27.3
Manufacturing Industries	23.2	11.6
Transportation	37.3	17.1
Building Trades	25.5	16.4
Stationary Engineers	12.4	4.6
Stationary Firemen	19.9	9.6
Trade	1.1	1.0
Professional Service	5.4	4.6
Clerical Occupations	8.3	1.8
Domestic and Personal Service	3.8	2.0
Public Service	7.3	2.5

TABLE 58

	TOTAL WAGE-EARNERS	TRADE UNION MEMBERSHIP IN U. S.	PER CENT ORGANIZED
1920	26,080,689	4,881,200	18.7
1910	22,406,714	2,101,502	9.4

	TOTAL WAGE-EARNERS EXCLUDING AGRICULTURE	TRADE UNION MEMBERSHIP IN U. S.	PER CENT ORGANIZED
1920	23,480,077	4,881,200	20.8
1910	19,262,941	2,101,502	10.9

in modern times, of corporate capital have been declared by law to be illegal, if, in fact, they are combinations in restraint of trade; but similar combinations effected by labor and by farmers are specifically exempted from this prohibition.

The opponents of labor organizations criticize them on the grounds that they exhibit all of the evil tendencies of monopoly; and not without reason. The purpose, aim, and hope of most of the labor organizations is to induce every worker in the industry to join the union, so that by monopolizing the supply of labor they can control the price; they seek to create what they call the "solidarity of labor."

At present, four fifths of the workers of this country are unorganized; there is much friction between organized and unorganized labor; but those in the organizations are constantly urging their competitors outside of the organizations to cast their lot with them.

Professor Ely remarks: "An organization which is constantly exhorting its competitors to come into the combination and share its benefits is at most an *inclusive monopoly*, and is not to be confused with the *exclusive monopolies* found in the field of business."

Methods used by organized labor. — The methods used by organized labor in their dealings with employers are not uniform; they vary in accordance with the different conditions that prevail in different industries.

1. Certain unions rely upon *apprenticeship*; so long as they can thus control the supply of labor in their own lines they have little use for strikes and boycotts.

Others, like the Brotherhood of Locomotive Engineers, do not need to regulate the rules of apprenticeship; from the nature of their calling no one can perform the work of a locomotive engineer without preliminary training; this enables them to ignore apprentice rules as well as the closed

shop; and, too, they seldom strike. Their system of mutual insurance together with collective bargaining retains the members and enables them all to obtain satisfactory rates of pay. In the unskilled trades, apprenticeship is unnecessary; these trades depend upon the "closed shop" and use as their weapons the strike and the boycott.

2. The *strike* is the simultaneous "quitting" work *en masse* by the laborers in an establishment.

3. The *boycott* is an organized effort to injure an employer by cutting off his sales.

4. When a strike occurs, the strikers resort to *picketing*; a picket is a striker who attempts to dissuade "scabs" or strike-breakers from working; so long as this is done peaceably and without resort to violence, it is legal.

5. A *sympathetic strike* is an effort to involve other firms in the struggle. Suppose a strike is on in establishment A; establishment B, it seems, furnishes establishment A with its raw material; if the workers in A can persuade those in B to strike, that will bring pressure to bear upon the management of A to come to terms. The strike in establishment B would be a sympathetic strike.

6. The "closed shop" is an establishment in which only union men may work; the "open shop" is open to both union and non-union men, although there are some open shops that are open to non-union men only.

There are two forms of the "closed shop": (a) The closed shop *with the closed union* in which the employer may hire only members of the union. (b) The closed shop *with the open union* in which the employer may hire whomsoever he desires, but all employees must join the union. Bitter controversy rages both as to the justification and the effects of the closed shop.

The non-union man's sacred "right to work" comes into conflict with the union man's sacred "right to quit work."

In your study of physics, you may have been given for solution this problem: "What would happen if an irresistible force came into contact with an immovable body?" The answer is that the situation here supposed is an impossibility. Similarly, it is impossible to settle the rights and wrongs of the controversy over the closed shop by an appeal to individual rights. To decide upon the justice or injustice of a strike against non-union men the particular circumstances of the individual case must be studied.

The public holds that the closed shop is entitled to public support only when the union welcomes "scabs" to join; when no violence is used, and when the rate of wages and other demands are reasonable.

Limitation of output. — The settled policy of the labor unions is to limit the output. They seek to do this by favoring decreased hours of work, penalizing over-time work, and, if piece-work, by limiting the amount of work to be done.¹

The unions justify their attitude by "the lump of labor" argument. They contend that the quantity of work to be done is fixed, definite, and unchangeable; hence, they claim, the less each employee does, the longer will the work last and the greater will be the number that can be employed. This "lump of labor" argument is as fallacious as the old "wage-fund" theory of the capitalists.

This policy of the unions is generally condemned. The short-time effect may be to raise wages, but it is based upon an economic fallacy. The long-time effect will be to reduce wages. There is no fixed, definite, and unchangeable

¹ Hamilton, *Current Problems*, pp. 694-698; and Ely, *Outlines of Economics*, pp. 446-448.

amount of product demanded ; over any extended period, the amount demanded will vary with the cost of production ; with decreased production will come lower wages and greater unemployment.

The laborers are consumers as well as producers ; as consumers it is for their interest that the greatest possible number of commodities shall be produced at the least possible cost. This policy seeks to lessen rather than to increase the amount of commodities available. The unions, for this among other reasons consequently, oppose " piece-work." Doubtless, in some cases they are justified on the ground that, in these cases, piece-work leads to speeding-up under the stimulus of pacemakers ; this may undermine the health of the workers.

Strikes and boycotts. — The two principal methods used to enforce its demands by organized labor are (1) the strike and (2) the boycott. Let us consider more in detail these weapons of militant labor.

First, *the strike*.

The strike is undoubtedly the most important weapon available to labor when engaged in industrial warfare. It is unfortunately too frequently used. Formerly, the unions, while maintaining their right to strike, indorsed arbitration and looked upon the strike as a last resort. Of late years they have become shy of arbitration, probably because of their increasing strength and the feeling on their part that arbitrators chosen from the public would be opposed to them because of alarm at the growing strength of organized labor.

The causes leading to strikes are various. (1) Approximately half of the strikes in the past have related to wages — for an increase of wages, against a decrease of wages, or against non-payment of wages. (2) Increase of hours

or for decreased hours; (3) recognition of the union and (4) general conditions of employment; (5) discharge of foreman demanded, and (6) because of discharge of foreman, and (7) because of discharge of employees; (8) employment of non-union men; (9) sympathy with strikers in other establishments — all these and other causes have led to strikes. (10) The “*check-off*” figures as one of the demands of coal miners. It means *deduction of union dues by the employer from the pay envelope*, the amount later to be handed to the treasurer of the union.

Exact statistics in reference to strikes are difficult to obtain. However, the following statistics for the years 1881–1905 will give some idea of the proportions of the factors involved:

TABLE 59

Number of strikes	38,303
Establishments involved	199,954
Number of employees in these establishments	7,444,279
Number thrown out of work	2,000,000
Average time lost	30 days
Loss of wages	\$380,000,000
Strikes won	48%
Partially won	15%
Lost	37%

The Anthracite Coal Strike Commission estimates that the losses due to the strike of 1902 were as follows:

TABLE 60

Loss to the coal companies	\$ 46,100,000
Loss of wages to the men	25,000,000
Strike relief funds	1,800,000
Loss to railroads in freight	28,000,000
Total	\$100,000,000

The Anthracite Coal Strike of 1925–1926 lasted 165 days, involved 158,000 miners, tied up 272 collieries serving 828

mines owned by 135 companies. The miners demanded a 10 per cent increase in tonnage rates, an increase of \$1 a day for day workers, check-off, equalization of day rates, a two-year contract, and other concessions. The settlement was a compromise favorable to the operators.

The losses resulting from the strike are estimated by the *New York Times* (February 13, 1926) at \$1,000,000,000 including wages, profits, loss of railroad revenue, and wastage due to the shutdown of the mines. The loss in daily production was 266,000 tons and the daily loss of wages amounted to \$1,500,000.

No estimate can be made of the loss and inconvenience suffered by consumers.

For the period, 1881-1900, of the strikes that were ordered 54% were successful, 11% partially successful, and 35% failed; of the strikes that were not ordered, 35% were successful, 8% were partially successful, and 57% failed.

These facts are presented graphically in Figure 111.

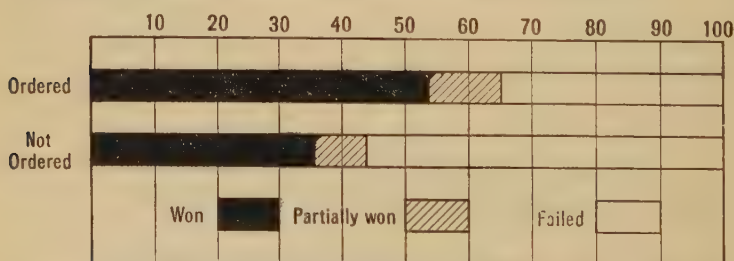


FIGURE 110. PERCENTAGE OF STRIKES WON, PARTIALLY WON, AND FAILED

Second, the boycott.

1. The union label is one form of boycott; it assures the public that the goods have been produced under conditions approved by the union or that the firms producing them are on the "white list," which contains the names

of firms recommended because they adhere to union conditions.

2. Another form of the boycott is the "black list," of undesirable employers as the unions term it, although the "black list," as ordinarily used, is a list of the names of undesirable workers, sent by employers to their associates so that these other employers will not hire them.

3. Another list is known as the "unfair list" or the "we don't patronize them" list; it is issued by workmen against firms with which they are at "outs," and is a form of boycott.

Classification of boycotts. — Boycotts are (1) primary, (2) secondary, (3) compound, (4) or tertiary. (1) A *primary boycott* is a combination of persons to stop business dealings with any one; (2) a *secondary boycott* is a combination to induce third parties to abandon business dealings with a certain firm or firms; and (3) a *compound boycott* is a combination to coerce or intimidate by injury or force. (4) A *tertiary boycott* is declared against those who continue to purchase at stores selling "unfair" goods.

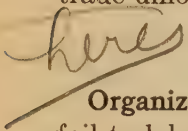
In earlier years boycotts were numerous and generally successful, but, towards the end of the last century and during the first quarter of this century, American legislation and court decisions generally have been against the legality of the secondary boycott. In most of our states the boycott is still illegal, but in New York, California, Montana, and Missouri the secondary boycott is legal, and in the first three the compound boycott has been declared to be legal.¹

In England in 1906 it was declared by the Trade Dispute Act that "an act done in pursuance of an agreement or combination by two or more persons shall, if done in contemplation or furtherance of a trade dispute, not be action-

¹ Seligman, *Principles of Economics*, pp. 441-442.

able, unless the act, done without any such agreement or combination, would be actionable." This statute legalizes the boycott.

In the Danbury Hatters case an attempt was made to apply to labor unions the federal anti-trust law of 1890; but in 1914 the Clayton Anti-trust Law specifically exempted trade unions from the operation of the law.



EMPLOYERS' ORGANIZATIONS

Organization of employers. — As a countermovement or foil to labor organizations employers have united to further their mutual interests. Employers' organizations have existed for many years; in 1789 the master shoemakers of Philadelphia formed such an organization. Of late years the employers' organizations have become very active and some of them aggressive.

The methods pursued by them are suggested by the methods used by the labor organizations. (1) The lockout of the employers corresponds to the strike of the laborers. (2) The black list of the employers corresponds to the boycott of the laborers, and (3) the "labor bureau" of the employers corresponds to the "unfair list" of the laborers.

Conspiracy of employers and employees. — It is said that in many instances employers' associations have actually coöperated to facilitate collective bargaining; in this, their influence was favorable to industrial peace; in other instances, however, the labor organizations and the employers' organizations have conspired against the interest of the public.

The Lockwood Committee of the New York legislature, through its investigation of the building conditions in New York City, made public the fact that employers and unions had combined to eliminate competition and to fix prices.

Bribery and other forms of corruption were unearthed; and criminal prosecution and conviction followed.

Like the labor organizations, some employers' associations are organized by trades, such, for instance, as the Stone Founders' National Defense Association; others are organized by industries, such as the Metal Trades Association; and still others are mixed associations in which different kinds of employers are united, such as the Citizens' Alliances common in many of our Western cities.

Attitude of employers' organizations to labor. — (1) Some of the employers' organizations are conservative and friendly with labor organizations; (2) others, while they do not wage war against labor unions, hold fundamental principles which are opposed to labor; for example, they maintain that the method of wage payment, that is, by piece, hour, etc., is a matter solely in the hands of the employer; they pay the wages, they say, and they alone shall determine the method; accordingly, they refuse to submit these questions to arbitration. (3) A third group of employers' organizations, illustrated by the Citizens' Alliance, is out to smash the labor union at any cost.

AGENCIES FOR INDUSTRIAL PEACE

There are four types of agencies for industrial peace, viz. (1) mediation or conciliation, (2) voluntary arbitration, (3) compulsory investigation, and (4) compulsory arbitration.

First, *mediation or conciliation*. — This is, perhaps, the earliest attempt to settle industrial disputes. Some public or private agency succeeds in bringing together the contending parties for the peaceful settlement of their differences through discussion and agreement, the acceptance of the findings being optional. The success of the method de-

depends upon the willingness of the contending parties to come to an agreement and to live up to it. The Industrial Commission of Wisconsin is an example of a public body authorized to take the initiative and offer its services to settle industrial disputes.

Second, *voluntary arbitration*. — In this instance, both parties agree to submit their dispute to some court or board for settlement. The board itself cannot take the initiative but must be invited to act by the contending parties who agree to submit to the decision and to refrain in the meantime from strikes and lockouts. It is entirely dependent upon the willingness of the parties to arbitrate and upon the force of public opinion to enforce the decision. In 1921 the Railway Labor Board, which has no power of compulsion, intervened in a dispute between the railways and their employees and were successful in averting a general strike.

Many students of the labor problem are of the opinion that arbitration and collective bargaining are incompatible for the reason that the representatives of labor are naturally unwilling to return to their constituents with only half a victory ; they prefer to place the onus of surrender upon the arbitrators.

A second reason advanced for the inconsistency of collective bargaining and arbitration is that the former is elastic and yielding, looking to future conditions, while the latter is static and judicial. It is unsuccessful because, as Professor Ely remarks, no one has yet formulated a doctrine of wage adjustments at once workable and generally acceptable. Arbitration is feasible over minor but not in case of fundamental differences. Employers like it because it prevents stoppage of work while arbitration is in progress.

Third, *compulsory investigation*. — A public board has the power, on its own initiative, to investigate the facts of

a dispute between employees and operators; strikes and lockouts are prohibited before and during the investigation; the findings of the board must be given wide publicity; and after publication of the findings full permission to strike or lockout is granted. The Canadian Industrial Disputes Act of 1907 created such a board; it has not been successful in the elimination of strikes, only postponing them in some instances; yet some students in this country are of the opinion that it is worth trying here.

Fourth, *compulsory arbitration*. — This system has been in use in Australia and New Zealand since 1896. Either the employees or the employers can appeal to public boards for arbitration; the decision is binding not only on these two parties to the dispute but upon all others in the same line of industry. One practical result has been the establishment in those countries of the minimum wage. It has not abolished strikes, but it has lessened their frequency. In this country, Kansas set up the Industrial Court, which was an application of the principle of compulsory arbitration; it was declared to be unconstitutional by the United States Supreme Court in 1923.

PROFIT SHARING

Advantages of profit sharing. — This is an effort to remove the causes of industrial unrest by giving employees a share of the profits fixed in advance; it may take the form of a bonus at the end of the year, shares of stock, or it may be placed in a savings or insurance fund. Profit sharing is supposed to enlist the employees' interest in the enterprise, to make them economical, and to increase their zeal and efficiency, because thus the employees themselves create the fund from which the bonus is paid.

Objections to profit sharing. — Labor leaders are opposed to profit sharing, 1. on the ground that *it stimulates men to*

work beyond their strength and eventually results in reduced wages; 2. again, they say, it is *illogical* for the *workers to create the fund* from which their profits are paid. If they do create the fund, it is asked, why not pay them on a piece-work basis? Then, it is said, the men will feel that they get what they earn in wages and not as a gift. As to this argument, it might be remarked, (1) that the unions oppose piecework on general principles, and (2) that it is not clear exactly how profit sharing is a gift, and (3) if the laborers do not themselves create the fund, whom do they expect to do so?

Really more serious objections to profit sharing arise from other considerations. 3. *Business is not uniformly successful*; there are not always profits to be divided; when business is poor, it may happen that both the employer and his employees must forego profits; in this case hard feeling and suspicion would be created on the part of the disappointed employee. 4. *If the entrepreneur, by careful planning and skillful management, really earns his profits*, why should he divide them with labor? Why not ask the capitalist, the landowner, and the government also to contribute so that the laborer's share may be larger?

An example of profit sharing. — Endicott-Johnson, shoe manufacturers of Binghamton, New York, maintain a profit-sharing scheme. The following table shows the net profits, earnings per share of common stock, dividends paid, and average distribution per employee under the profit sharing each year since 1919. Stockholders have participated in the profits beyond their regular dividends through a 20% stock dividend in 1923 and a 10% stock dividend and \$2 per share cash extra in 1920.¹

¹ *Barron's* for March 1, 1926, presents interesting statistics of the payments to stockholders and employees.

TABLE 61

YEAR	NET	EARNED PER SHARE COMMON	CASH DIVIDEND PER SHARE COMMON	DISTRIBUTION PER EMPLOYEE
1925	\$4,312,064	\$8.47	\$5	\$81.41
1924	4,175,644	8.04	5	95.00
1923	4,154,279	7.95	¹ 5	92.56
1922	5,617,530	13.77	5	245.44
1921	4,642,889	10.79	5	175.00
1920	3,150,441	6.43	² 7	45.45
1919	4,955,286	14.88	1.75	239.90

¹ Also a 20% stock dividend paid in this year. ² Also a 10% stock dividend paid in this year.

Another attempt to solve the labor problem is known as *productive coöperation*; this we have already discussed (page 116).

EMPLOYERS' LIABILITY AND WORKMEN'S COMPENSATION

Introduction. — The *Mayflower* and other English ships brought as cargo to this country much more than a certain number of colonists; one of the most important of the "invisible imports" that came with them was the English legal system; the English "common" law is the basis of our jurisprudence, except in the state of Louisiana; there the basis of the legal system is French; elsewhere the foundations are English. Any of you young people who contemplate studying law must not expect to spend your time learning the contents of statutes passed by state legislatures and Congress; not at all; you will study the underlying legal principles known as the English common law.

Under the English common law it is the duty of the employer to provide a reasonably safe place in which his employees are to work; he must provide also reasonably safe

machinery and reasonably prudent and competent fellow workmen; his liability is only for accidents resulting from his failure to exercise this ordinary prudence and care.

On the other hand, an employee assumes all of the risks and hazards incident to his employment or due to the negligence of his fellow servants; if he knew that the employer had not done his part, then the employee also assumes that risk.

Federal and state laws. — The development of the legal status of the employee, beginning with these principles of the common law, are too intricate for our consideration; the outcome of that development, however, it is important for us to understand. That outcome can be summarized in a few words. The federal government and more than half of the states have passed Workmen's Compensation Laws which are based upon the principle that the burden of industrial accidents shall be borne by the industry itself; that is, by the consumer in enhanced price and not by the laborer and his family.

As a concrete illustration of the operation of these statutes the following statistics for 1922 in connection with the Wisconsin Compensation Act are interesting:

The number of cases was 15,852; benefits paid aggregated \$2,959,974, an average per case of \$134 indemnity and \$42 medical aid; over 93% of the cases were settled without appeal to the Commission; the contested cases were slightly over 5%, and only 63 cases, or less than one half of 1%, were taken to the courts for settlement. The workman's compensation laws require the employer to take out insurance to cover his liability for industrial accidents to his employees.

LABOR LEGISLATION

General principles. — Labor problems connected with organized labor affect directly only one fifth of those in this

country who are gainfully employed. You may sensibly ask, "Are there no unsolved problems that concern the other four fifths?"

There are; many, serious, and some of them difficult of solution. The very fact that over 21 millions of workers in the United States are not organized in itself indicates that this vast throng is without the power that comes from collective bargaining; each individual worker stands singly against his employer and in competition with others who like him are engaged in their particular trade or calling.

That children need protection from the greed of unscrupulous or ignorant employers as well as from their own innate restlessness and natural repugnance to the discipline necessarily enforced at school is evidenced by the fact that labor laws for the protection of children have been enacted in every civilized country.

Laws for the protection of women workers are defended by those who think that women's sphere is the home and that the rough and tumble of industrial life are unsuited to them, consequently when they do work, it should be under protective conditions prescribed by law. Others argue for such laws on the ground that as women workers do not organize and therefore cannot bargain on the basis of equality with an employer, the law should come to their assistance.

That men should also be protected by law has not been so obvious; and, generally speaking, the legal protection for unorganized men workers is far from being as general as it is for children and women workers. However, in many countries, in those trades in which men are not on a bargaining equality with their employers, legislation for their protection has been enacted, especially in the so-called sweating trades. Ignorance and carelessness, too, often

lead men to enter employments the risks and terms of which they do not understand; in dangerous trades each thinks that he will escape injury; this has brought about the enactment of Workmen's Compensation Laws already described.

One of the most puzzling and confusing aspects of labor laws in the United States results from the multiplicity and exclusive jurisdiction of our courts; each state of the Union has its own state courts and the decisions of different courts on the constitutionality of labor laws is uncertain and contradictory; a law that is constitutional in one state may be unconstitutional in another; and a law that at one time is held to be unconstitutional in a given state may be declared at a later date by the same court to be constitutional.

For convenience we shall consider labor legislation in this country a little more in detail under five headings: (1) child-labor laws, (2) laws protecting women workers, (3) the legal eight-hour day, (4) the sweating system and the minimum wage, and (5) dangerous trades.

Child-labor laws. — The growth of child-labor laws has been closely connected with the growth of public, private, and religious schools which serve as substitutes for the factory and the work-shop. In those states which have given most attention to education, like Massachusetts and New York, we find the most rigid child-labor laws; on the other hand, in the South, where public education is backward, we find lax child-labor laws.

The child-labor law of New York is typical. Under its provisions no child under fourteen may be employed in manufacturing or mercantile pursuits and no child under seventeen may be employed without an "employment certificate." These certificates are issued by school employment certifying officers only on documentary or other conclusive

evidence of age and of school attendance and of a physical examination to determine fitness.

Children from fourteen to seventeen who obtain their certificate may be employed not more than eight hours a day nor forty-eight hours a week in all employments from which those under fourteen are debarred. Boys from seventeen to nineteen and females over seventeen are limited to nine hours a day and fifty-four hours a week in factories, and all females over seventeen are similarly limited in mercantile establishments and restaurants.

In factories the hours for children under seventeen is restricted to 8 A.M. to 5 P.M., and in other restricted employments to 8 A.M. to 6 P.M.

This law sets a high standard ; that of other states declines to the low standards of the Southern states.

Efforts to pass a federal child-labor law were twice declared unconstitutional by the Supreme Court, in 1919 and 1922 ; a proposed amendment to the constitution which would give to Congress the power to enact such a law has been defeated.

To be effective, a child-labor law must be accompanied by compulsory attendance at suitable schools up to the age when children are permitted to become breadwinners. These compulsory school laws can be defended as a commercial investment ; money so spent will bring rich rewards in enhanced industrial efficiency.

Laws protecting women workers. — The United States is less progressive than the more enlightened states of Europe in its protection of women workers. In 1923 six of the states placed no restrictions on the working of women ; in most of the states the limitations prescribe a nine-hour day and a fifty-four-hour week.

Some students of the problem think that mothers should

not be allowed to work at all ; others are of the opinion that mothers with infant children should not work ; while still others are indifferent on the subject.

This problem has been complicated by the variety in views expressed by state courts as to the constitutionality of such measures although they now seem to be secure as an exercise of the so-called police power of the state.

The legal eight-hour day. — In some instances the law now restricts the hours of labor to eight ; and the labor unions demand it ; eight hours is the usual day for government employees and it is common in the building and other skilled trades, while in other employments, nine, ten, and twelve hours are still the rule in the United States.

Consequently there is a lively debate as to the advisability of introducing a general compulsory eight-hour day in all employments.

1. *Arguments against the universal eight-hour day:* (a) It cannot be defended in all cases as a health measure. Different occupations make different demands on the strength and nervous energies of workmen ; a work day that would be suitable for one kind of employment would be excessive for another ; labor legislation has always recognized these differences in manufacturing, mercantile, and other pursuits.

(b) Again, in some trades the eight-hour day would not involve the reduction of output ; the lessened work period would permit more active and intense exertion on the part of workers than they can maintain for nine or ten hours ; in other trades reducing the hours would surely reduce the output, and this, in the long run, must mean reduced wages.

2. *Arguments for the eight-hour day.* (a) The social reason advanced in favor of the universal eight-hour day is that men and women of recent years more and more appreciate

the importance of leisure and social intercourse. Why, it is asked, should life be one long grind, void of pleasure and relaxation? Let us have eight hours for work, eight hours for meals and relaxation, and eight hours for sleep.

(b) The practical reason advanced in favor of the universal eight-hour day is the difficulty of determining in a particular employment exactly how many hours are ideal; it is much easier and probably fairer to fix the same number of hours for great groups of laborers.

(c) Some students of this problem hold that the view so pertinaciously surviving in the United States to the effect that protective legislation should be confined to women and children must in time yield before the conclusive evidence that men are often in need of protection. It is true that skilled workmen organized in trade unions do not usually need legislative protection; but the unskilled and unorganized workmen do often need legislative help if they are to improve their standard of living and their industrial efficiency.

In 1916, the eight-hour day was made the standard on the railroads; it is the rule in the mining and building industries, and it is becoming more and more general in manufacturing.

The sweating system and the minimum wage. — The "sweating trades" are carried on in the large cities and have even spread to the country districts. It exists in the clothing trade except where the workers are organized or legislation prevents.

This industry is carried on in several stages; the cloth is cut under the direct supervision of the manufacturer; the pieces are then tied in bundles and turned over to contractors who agree to have them made up at a certain fixed price per garment; the contractors take them to their shops, known as "sweatshops"; the work of sewing is either done under

their personal supervision in these shops or else by men and women working in their own homes.

The evils of the sweating system are that the wages are low and unequal for the same kind of work, employment is irregular, hours are long, the shops are unsanitary, and there is no hope of advancement.

The existence of the sweating system is due to the fact that the work itself is so simple that any one of ordinary intelligence can learn to do it after a few hours of instruction; hence it is open to the competition of men, women, and children. Home work is taken by the well-to-do wife of a laborer in order to secure "pin money," and by the poor widow struggling to feed her children; men too old to do anything else sew side by side with children who should be in school; consequently, the labor market is always overstocked and wages are low.

In our seaboard cities, newly arrived immigrants readily take up this line of work, not knowing that, compared with other employment, this is poorly paid. Ignorance and isolation of the workers, particularly those working in their own homes, enable the contractor to make a special bargain with each one; for example, a certain contractor in Philadelphia in 1898 paid prices for sewing army trousers varying from 35 to 75 cents per garment.

In American cities efforts are made to insure sanitary conditions of the shops and the homes in which work is done; but more has been accomplished by the efforts of the shop and factory workers in the clothing trades themselves to force the employers to abandon home work.

A minimum wage is a legal rate below which an employer may not hire a laborer.

In Victoria, Australia, minimum wage boards were first appointed in 1896; they were authorized to fix not only

wages but hours of labor and the proportion of apprentices; these regulations apply to more than 250 trades, with the result that conditions in the sweating trades have been improved and home work in certain trades has been made unprofitable.

In this country several states have enacted statutes providing for similar wage boards, but the constitutionality of such laws is still uncertain.

Dangerous trades. — Some trades require special regulation on the ground that they are dangerous to life or health. Manufacturing industries which use power-driven machinery are dangerous; and laws have been passed in all civilized countries requiring that revolving machinery shall be fenced, and that cleaning machinery while in motion shall be prohibited or limited to adult workmen.

Particular trades require special regulation; occupations connected with the cleaning of textiles and polishing metals are particularly unhealthful as are those concerned with the manufacture of white lead and many chemicals.

In transportation and mining, mortality is high and it can be reduced only by legislative interference, for instance, safety lamps and automatic couplers have been introduced upon legislative compulsion.

EXERCISES AND PROBLEMS

I

1. With whom is the labor problem concerned?
2. What is the labor problem?
3. What is collective bargaining? Why did it arise?
4. Trace the development of labor organizations in the United States.
5. How does the American Federation of Labor differ from the Industrial Workers of the World?

6. What are the three distinct types of labor organizations?
7. What proportion of American laborers are organized?
8. Do labor organizations form a monopoly? Why or why not?
9. What methods are used by labor organizations in fighting their battles?
10. What are the two kinds of "closed shops"?
11. In modern days what two "sacred rights" have come into conflict? How shall we resolve this *impasse*?
12. What is meant by "limitation of output"? Is it economically justifiable? Why or why not?
13. What is a strike? Why do men strike? How successful have strikes been? What loss do the laborers suffer from a strike?
14. What is the boycott? How many different kinds? What are they?
15. What is the "unfair list"? The laborers' "black list"? The laborers' "white list"? The employers' "black list"?
16. Are labor unions subject to the Clayton Anti-trust Law? Why or why not?
17. Name three types of employers' organizations.
18. Name and discuss each of the four agencies for industrial peace.
19. What is profit sharing? Give arguments for it and against it. Which are the stronger? Why?
20. What is meant by employers' liability? Workmens' compensation?
21. According to the common law, what risks were assumed by the laborer? How have statutes altered these risks? Why?
22. Is there a Workman's Compensation Law in your state? If so, what are its provisions? How successful is it?
23. Give two reasons for labor laws protecting children.
24. Give two reasons for labor laws protecting women.
25. Should men be protected by law as well as women and children? Why or why not?
26. How have our courts been an obstacle to labor legislation?
27. What is the relation of child-labor laws to educational progress? To compulsory education?

28. Give the provisions of the child-labor of the State of New York.

29. To what extent and in what particulars are women workers protected by law in the United States?

30. Give the arguments for and against the legal eight-hour day. In your opinion which are the stronger? Why?

31. What is a "sweating trade"? Describe the clothing trade. What are the evils of the "sweating trade"?

32. What is a minimum wage?

33. What laws protect workers in dangerous trades?

II

1. Leaving out all lawlessness, what losses are inevitable in a strike? Illustrate by examples how different interests are affected.

2. A labor agitator said of a building which had just been completed: "That building is wholly the product of labor." What do you think of that statement?

3. Can a strong trade union keep up the price of an article by limiting the output?

4. Are there any industries in which strikes should be prohibited by law? If so, what and why? If not, why not?

5. "The contention that a majority of employees, by voluntarily forming a union, acquire authority over others is untenable." What would union men say to that?

6. The Boston Elevated Road finds it difficult to discharge its employees against the wishes of the union. Is this a desirable condition from the viewpoint of the union, the company, the passengers?

7. "Railroad men have a moral obligation to remain at work, and keep the railroads running, pending a settlement of grievances." Argue for or against this statement.

8. "It is the privilege of the employee to leave our employ whenever he sees fit and it is the privilege of the employer to discharge any workman when he sees fit." How would labor unions regard this statement?

9. Profit sharing has been more successful in England and France than in the United States. Can you give any reasons for this fact?

10. Is a man justified in protesting against a limitation of the working day on the ground that he has a right to work as long as he wishes?

11. What are the child-labor laws in your state? What are the laws protecting women workers? What are the laws protecting men workers?

III

1. Give three economic causes of high wages in the United States to-day.

2. State three particulars in which the working man's condition in this country is better than it was 20 years ago. Mention some forces that have operated most strongly to bring about such improvement.

3. Define labor union; justify the existence of such an organization, and point out two abuses into which it sometimes falls.

4. Discuss the good and the bad phases of the labor union.

5. State three purposes for which the labor unions are organized. Show wherein labor unions may be (a) helpful to employers, (b) harmful to laborers.

6. Are you in favor of the "open shop" or the "closed shop" as a policy in capitalistic production? Give reasons for your answer.

7. Give three reasons why the state should regulate factory labor.

8. Discuss the "standard wage" in its relation to the individual interest of an extra-skilled workman.

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CHAPTER XXIV

RADICAL PROPOSALS FOR REFORM

INTRODUCTION

What does the future hold? — Thoughtful people are aware that life means activity; activity means change; social and economic conditions to-day in this and other countries are not the same as they were one hundred, two hundred, or a thousand years ago; doubtless, by that token, we can say that the social and economic conditions one hundred, two hundred, or a thousand years hence will not be the same as they are to-day.

What kind of changes are coming to the world? Some men favor social and economic reconstruction; others favor social and economic evolution.

We shall consider the proposals of those who wish to reform the world under four general headings: (1) communism, (2) socialism, (3) syndicalism, (4) anarchism.

OBJECTIONS RAISED BY THE RADICALS

Beliefs held in common by radical reformers. — While the advocates of the four "isms" enumerated above violently disagree among themselves in many of their views, still the similarities among them are striking, and we shall find it profitable to ascertain what they are.

In the first place, they agree in being against things as they are at present; they all wish to replace existing institutions by others of their own selection.

In the second place, they all maintain the firm conviction that any advance in the welfare of the mass of working men must depend primarily upon organized efforts of their own, not upon the unaided workings of economic law or the mere good will of the well-to-do.

They assert that those classes who own most of the property and hold the highest positions in industry and business are too powerful — so powerful are they that they can make their own point of view effective, even when it is mistaken and contrary to the public interest.

The doctrine of class conflict. — This general position is crystallized in the theory that the existing order involves a fundamental and irreconcilable conflict of class interests, a theory we have already condemned as unsound.

Economists deny that the property-owning class is able to exert any such degree of economic or political power as these critics attribute to it, or that the interests of property owners or employers are mutual or identical.

This theory of class conflict fails to reckon with the irrepressible competition between employers engaged in producing all kinds of goods.

The United States is the greatest market in the world and the easiest place to make a fortune because of the wide distribution of wealth among its people; this wide distribution of wealth, too, is inevitable under the existing economic system. The rapid growth of the automobile industry in this country has been possible here because of the widely diffused buying power; it has not been paralleled in Europe because the general buying power is not there.

Rich rewards for "owning" but little for "doing." — The radical reformers unite in denouncing the large proportion of the product of industry that goes to those who *own* the

land and the capital goods, while those who *do* something, the workers, receive so little.

That argument does not "hold water," in this country at least. Statistical research in those industries for which census figures are available, especially those in which the largest employment occurs, proves conclusively that from 70 to 75 per cent of the gross income goes for wages and salaries, and of the remaining 25 to 30 per cent a large part is very widely distributed and a large part is returned to industry for its development; this distribution is due to the natural competitive forces in the existing system.

"Dictatorship of the proletariat." — The radical reformers favor the development of strong labor unions and the organization of working-class political parties — or at least the participation of workers in politics as an organized group. The more radical would go farther and urge the workers to seize at one stroke the whole machinery of government and to appropriate the ownership and control that now vests in the propertied classes.

The idea at the center of this theory is that the working classes must obtain and utilize power; it is often called by them "the dictatorship of the proletariat." Suppose they secure the power, what will they do with it? What policies do they intend to enforce?

PROGRAMS OF DIFFERENT RADICAL GROUPS

The program of the communists. — The communists would abolish private property both in production-goods and in consumption-goods.

They would have the world live like a large family, united in spirit and located, perhaps, by itself on a farm and having no relations with the rest of the world. The members of this family are supposed to work at different tasks and to

pool the results of their labor, each sharing according to his needs in the food, clothing, shelter, etc. There is to be no buying and selling, and the consumption enjoyed by any one member of the family is not supposed to bear any definite relation to the share he has taken in production; of course the father and mother would expect to produce more than they consumed.

The most obvious inquiry that suggests itself is how the necessary spirit of unity could be obtained among the millions of people in the whole country. Would people in California be willing to trust that the people in New York would do their fair share of the work and not consume more than their fair share of the products?

Communism was tried on a colossal scale in Russia.

It was expected that the peasants and the city folks would coöperate in production, pool their products and draw from the common store whatever they might need. The first year, it seems that, at least in certain districts, the peasants went right on growing their crops; at the end of the year government agents carried away all surplus food above an allowance for the needs of the peasants, who were permitted in return to draw on the common store of the products contributed by the factories. However, it turned out that the latter were not numerous and did not consist to any great extent of the things the peasants wanted; the peasants were not pleased; and the next year they planted only enough to supply their own needs; there was no surplus to be carried away by outsiders.

Incentive was lacking. That is the fatal weakness of communism.

The program of the socialists. — The socialists would abolish private property in production-goods, but they would allow it in consumption-goods.

They would have all industries owned and run by the government as the post-office is at present, or the municipal water supply.

Government officials would decide what should be produced, how much of each article and of what quality; the government would pay everybody wages which they would spend at the government stores.

Socialism differs from communism in that (1) it would not abolish private property in consumption-goods; (2) it would not dispense with buying and selling; nor (3) would it abandon the idea of some necessary relation between the work that a man does in production and the amount of his consumption.

Inasmuch as socialists would see that none drew wages unless he worked, they would, of course, eliminate such incomes as interest, profits, and rent. All would be wage-earners; all would work for the state; and the whole of the produce would be sold to the wage-earners for their consumption. The socialists would object to our post-office illustration on the ground that it is operated at the top by men who are themselves controlled by capitalists; the control at the post-office, they say, is not "democratic"; it does not vest in the working classes that controlling power which is the aim of socialism.

Nor do modern socialists assert that the whole product of industry should take the form of articles for immediate consumption; they would have regularly reserved some part of the annual product for additions to capital goods. Capital goods must be maintained and they must be increased under any permanent economic régime; but if such be the case, what becomes of the socialists' plan of directly conferring upon labor "the whole product" of industry? It falls to the ground.

The fundamental weakness of the program of the socialists is in the political method of selecting the managers of industry as contrasted with the competitive method which prevails at present. The leaders of to-day are leaders because they have won those positions; they can keep them as long as they are competent; American opinion is inclined to agree with the late President Harding that we need "less government in business and more business in government."

The program of the socialists presents inherent weaknesses that fail to recommend it for our acceptance.

1. It fails in its *underestimate of the efficiency of the present system*; the socialist sees all the starvation, misery, luxury, and extravagance, but he passes by the millions of comfortable homes scattered throughout the land; the average condition is certainly better than it was fifty years ago; the rising generation has greater opportunities than any that preceded it.

2. It fails in its *underestimate of the importance of individual responsibility*; under the present régime every man is "up against" the stern necessity of making his own way; the lazy and incompetent are weeded out; the "struggle of life" makes men of us.

3. It fails in its *underestimate of the importance of free enterprise*. If you think you have a plan that will satisfy people's wants, you are not obliged to secure the permission of a government official; you assume the risks in hopes of the reward; the socialists fail to take account of possible losses.

4. Socialism has in it *great danger to liberty*. There would be but one sphere of employment; that would be controlled by officers of government; how could they be kept from exercising their power in an irresponsible manner?

They would tell you what to buy as well as what to make and what to do. It would be intolerable.

Kinds of socialism. — There are six different kinds or types of socialism :

First, *Utopian socialism*. — These advocates of socialism are largely dreamers of better conditions than they find around them ; they have drawn up “ utopias ” or “ the land of nowhere,” in which everybody is happy. Prominent among them was Robert Owen, an English manufacturer and philanthropist, who established an unsuccessful socialistic colony at New Harmony, Indiana. Others who could be named are Saint Simon, Fourier, Cabet, and Bellamy.

Second, *Marxian socialism*. — The Marxian socialists call themselves “ scientific ” as distinguished from the idealistic or utopian socialists.

They claim that the present private capitalistic system is breaking down, and the logical outcome must be collective ownership of the means of production as the next step in the evolution of society. According to them socialism is coming whether we like it or not.

Karl Marx (1818–1883) and Frederick Engels were the founders. Marx elaborated his social philosophy in his book, “ *Das Capital*,” the “ bible of socialism.” The two main features of his system are (1) the labor theory of value, and (2) the economic interpretation of history.

(1) The labor theory of value is untenable ; value is not created by labor nor do goods exchange in proportion to the amount of labor embodied in them ; if you spent ten millions of dollars building a chimney five miles high, its value would not be ten millions. Who, except Santa Claus, wants a chimney five miles high?

(2) The economic interpretation of history makes the struggle for a living the all-controlling factor which deter-

mines political, legal and religious institutions, as well as art, literature, philosophy and our codes of morals; self-interest expresses itself in the class struggle. Marx's economic interpretation of history has not been generally accepted by competent students.

Third, *Christian socialism*. — These advocates of socialism base their argument and their hope on the doctrines of the early Christians, who, they claim, held all things in common. Charles Kingsley, preacher and novelist, author of *Westward Ho!* and *Hypatia*, is an outstanding figure among them.

Fourth, *Fabian socialism*. — The British Fabian Society was organized in 1889; in numbers it is small; but its influence on socialism, the labor movement, and British politics has been large because of the intellectual distinction of its leaders, among whom are Sidney and Beatrice Webb, Bernard Shaw, and Graham Wells. Education, coöperation, and gradual change rather than revolution are the methods advocated by the Fabians.

Fifth, *state socialism*. — This is the type of socialism advocated by Bismarck. He said that the way to cure the bite from a mad dog was to apply some of the hair of the dog that bit you; accordingly he desired to extend the functions of government into industry; it really means simply an extension of government ownership.

Extreme Marxian socialists oppose state socialism on the ground that it bolsters up the present "capitalistic state."

Sixth, *guild socialism*. This is of comparatively recent origin in England. As its name suggests, it harks back to the Middle Ages for its inspiration.

It is strong on criticism of existing methods; (1) it objects to the wage system because it rests on the "commodity theory of labor" and treats the laborer as a passive tool;

(2) it objects to "industrial autocracy" which robs the laborer of his independence and the power of self-direction and self-expression; (3) it objects to "production for profit instead of for use"; and, finally, (4) it objects because ownership of property is not based on the social service performed by property and its owners.

If industry could only be "restored" to mediæval conditions and to the control of the workers, they would perform their tasks with joy and success.

Their scheme resembles that of Kropatkin with the difference that somehow the groupings of workers is to be supervised and directed.

The program of the syndicalists. — This type of social reform arose among wage-earners who were pleased with the progress and accomplishments of trade unions but who were disgusted with government officialdom; in common with communism and socialism syndicalism accepts the dictum that the power of the organized workers is to be supreme; unlike communism but like socialism it retains the idea of some necessary relation between a man's contribution to production and his share in consumption; but it differs from Marxian socialism by having no use for government officials, officeholders, and bureaucrats.

The syndicalist proposal would place the control of each industry in the hands of the organized workers in that industry; they would choose their own leaders, superintendents, managers, foremen, etc., and they would exercise final control over the quantity and quality of products, methods, and conditions of production. Under their plan, the coal mines would belong to the miners, the shoe factories to the workers in that industry, the railroads to the railroad workers, etc. Indeed, what is known as the "Plumb Plan" for American railroads was precisely a syndicalist

proposal. The name syndicalism is derived from the French word "syndicat" meaning trades union.

The weakness of the syndicalist proposal is that each industry thus organized would form what Professor Ely calls a "*bi-partisan monopoly*." We have recently had in New York City an illustration of what it would mean; the employers and unions in the building trade conspired together to fix prices; they fixed them so high that the public rebelled; a legislative investigation revealed facts which later led to trials and conviction.

If the railroads, the coal mines, and the packing houses were organized according to the syndicalist plan, what would become of the farmers, the professional classes, and others who could not organize? They would sell their services and products for what they could get and buy the products of the syndicated industries at prices fixed by them.

(1) *The fatal weakness of the syndicalist scheme is that it fails to provide any method for establishing well-balanced relations among different industries; and, (2) too, the syndicated groups would come into conflict with each other. No means of settlement is proposed.*

The program of the anarchists. — The anarchists and the socialists are poles apart. Their only similarity is that they are both opposed to the *status quo*; in their view that is all wrong.

The socialists exalt government; the anarchists loath it. By what right, demand the anarchists, does one man exercise authority over another, or a majority tyrannize over a minority? The anarchists are all for freedom, independence, self-reliance, and non-compulsion. They favor that ideal arrangement by which men freely and voluntarily form coöperative groups.

Prominent among revolutionary anarchists are Kropatkin,

Bakunine, and Stirner; the "philosophical" anarchists, Tolstoi and Tucker, advocate a peaceful policy of non-resistance.

The anarchist ideal is impossible of realization; neither business nor government can be conducted by a mob.

EXERCISES AND PROBLEMS

I

1. What is the difference between "economic reconstruction" and "economic evolution"?
2. In what two particulars do the various radical reformers agree?
3. What is the doctrine of class conflict?
4. What objection do the "doers" make against the "owners"?
5. What is meant by the "dictatorship of the proletariat"?
6. What is the program of the communists?
7. What is its great weakness? What light does the illustration of the Russian peasants throw on communism?
8. What is the program of the socialists?
9. How does socialism differ from communism?
10. What are the failures of socialism?
11. Name six types of socialism indicating the peculiarity of each. Which has the largest following?
12. What is the program of the syndicalists?
13. How is syndicalism like and how unlike (a) socialism, (b) communism?
14. What are the two weaknesses of syndicalism?
15. What is anarchism? How is it unlike socialism? What is the difference between revolutionary and philosophical anarchism?

II

1. Why do Americans take more kindly to unionism than to syndicalism?

2. Has communism in Russia introduced the "dictatorship of the proletariat"?
3. Under socialism, who would do the "dirty work"?
4. What is the meaning of the statement that "socialism is a movement and not a program"?
5. Is government ownership a form of socialism? Why or why not?
6. Is labor a commodity? Why or why not?

III

1. Explain in some detail what is meant by industrial democracy.
2. How do you define socialism?
3. Explain the meaning of socialism and show the advantages and disadvantages of a socialistic organization of society.
4. "The working class is the only class entitled to any consideration and, as I said, I believe any tactics that will accomplish our purpose right." Discuss the essential falsity of this proposition.

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PART VI
DEPARTMENT OF PUBLIC FINANCE

CHAPTER XXV

PUBLIC EXPENDITURES AND PUBLIC REVENUES

INTRODUCTION

Why do we study public finance ? — It may have occurred to you to wonder why we include this subject in our study of Economics. There are three reasons.

1. We recall that there are five agents of production : the entrepreneur, the land-owner, the laborer, the capitalist, and *the community*. We have already considered these five agents of production, and the factors contributed by them ; we have also discussed the first four as recipients of profits, rent, wages, and interest, respectively. But, as yet, we have not treated of the share that goes to the community. In this chapter, we shall discuss the important topic of taxation.

2. It is also because to every business man a large and growing item of his cost of production is the item of taxes. As an illustration of the increasing tax burden carried by our business enterprises the figures of the increasing amounts of taxes paid each year by railroads are startling. The year 1925 was the fifth since 1919 in which railroad taxes exceeded dividends. The railroads devote the net earnings of one mile out of every four to the payment of taxes. (See table 62.)

3. Taxes are a growing item in the personal and family expenses of all of us. Because of excessive taxation, (*a*) labor asks higher wages, (*b*) the rental of your home or the cost of owning it is increased, (*c*) the price of the food we

eat, of the fuel we burn, and of the clothes we wear is greater.

TABLE 62
RAILROAD TAXES AND DIVIDENDS
1919-1925

	TAXES	CASH DIVIDENDS
1919	\$232,601,396	\$278,516,908
1920	272,061,453	271,731,669
1921	275,875,990	298,511,328
1922	301,034,923	271,573,751
1923	331,915,459	296,127,048
1924	340,336,686	320,429,767
1925	358,475,479 ¹	340,668,742 ¹

¹ Preliminary.

In his budget address to the Business Organization of the Government, June 21, 1926, President Coolidge emphasized the influence of taxation upon every citizen as a consumer in the following words: "While these figures (of increase in the surplus and reduction of the national debt) speak for themselves, their real import lies in the influence which these reductions have had on the welfare and prosperity of the people. This influence goes far beyond the material reductions I have mentioned. *It reaches into every phase of the daily life of the people.* There are more of the necessities, conveniences, and luxuries in the homes of the people, in the city and in the open country, because the government has let the people have more of the money they earn for themselves instead of taking so much from them in taxes."

Divisions of public finance. — The logical divisions of the subject are suggested by the definition of public finance.

Public Finance is that part of Economics which treats of (1) *the expenditures* and (2) *the revenues of government*.

The study of government expenditures and revenues in the United States is complicated by the division of government functions among (1) national, (2) state, and (3) local governmental bodies. Our treatment of the subject therefore will deal (1) with national expenditures and national revenues, (2) with state expenditures and state revenues, (3) with local expenditures and local revenues, and (4) with certain principles and theories of taxation.

Government finance differs from that of private individuals in one important particular. The private individual must make his expenditures come within his revenues, but the government first determines the amount to be expended and then raises the necessary funds.

It is only within recent years that a systematic and determined effort has been made to effect the balance of expenditure and revenue through the establishment by Congress of a federal budget. The national budget for the year 1924 provided for the following :

Estimated receipts	\$3,361,812,350
Estimated expenditures including reduction of the public debt	3,180,843,234
Excess of receipts	\$ 180,969,116

The purposes of a government budget have been summarized by Ely and Wicker as follows: “ (1) to make every dollar expended produce full value; (2) to estimate in advance of each year the revenue of that year and whence it is to come; (3) to keep taxation closely adjusted to needs, so that both surpluses and deficits may be avoided; (4) to prevent officers or departments from getting more money than needed for effectively doing the precise tasks set them by Congress; and (5) to insure that whatever money is not needed is not spent.”

FEDERAL FINANCE

FEDERAL EXPENDITURES

Classifications of public expenditures. — For the year 1924 the estimated expenditures of the national government were as follows, in thousands of dollars :

	<i>Amount</i>	<i>Per Cent</i>
A. General functions	\$ 104,296.7	2.79
B. Military functions	1,233,237.3	32.74
C. Civil functions	1,028,726.8	27.31
D. Non-functional expenditures	1,399,235.6	37.16
Grand Total	\$3,765,496.4	100.00
Deduction postal expenditures payable from postal receipts	584,653.2	
Net expenditures from public funds . . .	\$3,180,843.2	

These items of expenditure require some explanation.

(A) *General functions.* — This item includes those charges which arise from carrying on the several departments of government.

Salaries and other expenses of the legislative department amount (in thousands) to	\$ 8,624.7	or	0.24%
Similar payments for the judiciary department amount to	9,564.0	or	0.26%
Similar payments for the executive departments amount to	378.3	or	0.01%
And similar payments for the purposes of general administration amount to	85,729.7	or	2.28%
A total for general functions	\$104,296.7	or	2.79%

(B) *Military functions.* — These include payments for present military defense. They are divided into several categories :

National defense — army and navy	\$ 568,821.8	or	15.10%
Special war agencies	59,725.0	or	1.59%
Military pensions, insurance, etc.	724,140.5	or	19.23%
Total for present military functions	\$1,233,237.3	or	32.74%

C. Civil functions. — Under this heading is a group of miscellaneous items whose purpose is to promote the general welfare :

Foreign relations	\$ 14,708.2	or	.39%
General law enforcement	18,244.7	or	.48%
Control of currency and banking	6,752.3	or	.18%
Administration of Indian affairs	11,520.0	or	.31%
Administration of public domain	16,689.3	or	.44%
Promotion and regulation of commerce and industry	10,606.0	or	.28%
Operation and regulation of marine transportation	53,861.7	or	1.43%
Postal service telephone and telegraph	583,700.7	or	15.5%
Promotion and regulation of agriculture	24,087.0	or	.64%
Promotion and regulation of fisheries	1,158.0	or	.03%
Promotion of labor interests	5,307.2	or	.14%
Immigration and naturalization	3,787.8	or	.10%
Promotion of public health	15,342.3	or	.41%
Promotion of public education	9,378.3	or	.25%
Science and research	10,150.8	or	.27%
Public works	168,507.5	or	4.47%
Revenue producing enterprises	223.0	or	.01%
Local government	29,851.54	or	.79%
Relief expenditures	198.0	or	.00%
Total civil expenditures	\$1,028,726.8	or	27.31%

D. Non-functional expenditures. — These relate chiefly to the public debt :

Refunds losses and contingencies, etc.	\$ 36,270.5	or	.96%
Investments	18.0	or	.00%
Fixed debt charges	1,295,097.0	or	34.40%
(a) Debt retirement from "ordinary" receipts	\$345,097.0	or	9.17%
(b) Interest on public debt	950,000.0	or	25.23%
Trust funds	67,850.1	or	1.8%
Total non-functional expenditures	\$1,399,235.6	or	37.16%

War expenditures. — Expenditures for warlike purposes include not only current expenses for military purposes but also fixed debt charges. Our past wars have involved us in our public debt. If we combine these two classes of

military expenditures, we shall be startled by the magnitude of the total.

E. B. Rosa in his *Expenditures and Revenues of the Federal Government* presents the following figures for the year 1920. These indicate the proportion of our national expenditures for wars, directly and indirectly, in that year, and for other purposes :

FEDERAL EXPENDITURES FOR 1920

	<i>Per Capita</i>	
Past wars, total	\$37.33	or 69.8%
Pensions and care of soldiers	\$3.09	or 5.8%
Obligations arising from war	15.36	or 28.7%
Interest	8.73	or 16.3%
Surplus for the reduction of the public debt	10.15	or 19.0%
Current military and naval maintenance	12.68	or 23.8%
Total military expenditure	\$50.01	93.6%
Primary government functions	2.11	3.9%
Public works	0.80	1.5%
Research, education and development	0.54	1.0%
Grand total	\$53.46	100.0%

In other words, in 1920, 93.6% of the expenditures of the federal government were for war, and 1% was for "research, education and development." The figures carry their own comment.

Federal receipts and expenditures. — The receipts and the expenditures of the federal government, 1891–1925, are presented in Table 63.

FEDERAL REVENUES

Classifications of public revenues. — Many different classifications have been made by various authors. The following is generally accepted :

A. Permanent revenues.

I. Regular revenues.

TABLE 63

ORDINARY RECEIPTS AND EXPENDITURES CHARGEABLE AGAINST THEM ¹

[In Millions of Dollars]

YEARLY AVERAGE OR YEAR ¹	ORDINARY RECEIPTS					EXPENDITURES CHARGEABLE AGAINST ORDINARY RECEIPTS				Sur- plus (+) or Deficit (-)
	Total	Cus- toms	Income and Profits Tax	Miscel- laneous Inter- nal Rev- enue	All Other	Total	Inter- est on the Public Debt	Public Debt Retire- ments	All Other	
1891-1895	353	177	—	150	26	364	29	—	334	- 11
1896-1900	435	185	—	207	43	457	38	—	419	- 22
1901-1905	559	260	—	255	44	536	28	—	508	+ 23
1906-1910	629	311	—	257	61	639	23	—	616	- 10
1911-1915	710	289	50	307	64	720	23	—	697	- 10
1916-1920	3,489	226	1,976	875	412	8,343	377	—	7,966	- 4,854
1921-1924	4,355	443	2,212	1,090	610	3,890	995	426	2,469	+ 465
1916	783	213	125	388	57	742	23	—	719	+ 41
1917	1,124	226	360	450	89	2,086	25	—	2,061	- 962
1918	4,180	183	2,839	857	302	13,792	198	—	13,594	- 9,612
1919	4,654	183	2,601	1,239	631	18,952	616	—	18,336	- 14,298
1920	6,704	324	3,957	1,442	982	6,142	1,024	—	5,118	+ 562
1921	5,585	308	3,228	1,352	697	4,891	997	423	3,471	+ 694
1922	4,104	358	2,087	1,121	538	3,618	989	422	2,207	+ 486
1923	3,847	562	1,691	936	658	3,648	1,055	403	2,190	- 199
1924	3,884	545	1,842	953	545	3,404	939	458	2,007	+ 480

¹ Years ended June 30.

Source: Treasury Department.

1. Derived directly from government ownership.
 - a. Revenues from public domains.
 - b. Revenues from public industries.
2. Derived from the incomes of private persons and corporations.
 - a. Fees.
 - b. Special assessments.
 - c. Taxes.
- II. Irregular and miscellaneous. Fines, forfeits, escheats, gifts, indemnities, etc.

B. Temporary revenues. (To be repaid.)

I. Public loans by the sale of bonds.

II. Public loans by the issue of treasury notes.

In treating of the income of the federal government we shall begin with the last — temporary revenue or loans. It is generally agreed among writers on public finance that it is legitimate for governments to borrow for three purposes :

First, In case of war they may borrow to prosecute the war.

Second, They may borrow for the development of some public improvement or industry, for example a city may borrow money to build schools or to install its own water system.

Third, Government may borrow to make up a small deficiency in the year's revenues. Careful financing requires that the government's income shall balance as nearly as possible its revenues. But the income is somewhat irregular and it fails sometimes to meet the expenditures. In such cases it is legitimate to borrow in moderate amounts to meet deficits.

The federal government has borrowed chiefly to meet the emergency expenses of war, and thus the debt of the United States has been built up. On October 31, 1921, it stood thus :

TABLE 64

Consols of 1930	2 %	\$599,724,050
Loan of 1925	4 %	118,489,900
Panama Canal Loans	2, 3 %	124,901,580
Conversion Bonds of 1946-47	3 %	28,894,500
Postal Savings Bonds	2½%	11,774,020
First Liberty Loan	3½, 4, 4½%	1,952,162,100
Second Liberty Loan	4, 4½%	3,314,095,200
Third Liberty Loan	4½%	3,608,919,350
Fourth Liberty Loan	4½%	6,350,938,950
Victory Liberty Loan	3½, 4½%	3,644,895,400
Treasury Notes	5½, 5½%	701,897,700
Certificates of Indebtedness (various)		2,078,593,000
War Savings Certificates and Thrift Stamps		663,969,378
		\$23,199,255,128

(Financial Statement, U. S. Gov.)

Public loans. — Great national debts are of comparatively recent origin. They appeared at the end of the seventeenth century in the reign of William and Mary of England, and during the nineteenth century they grew with astounding rapidity in every civilized country.

Before the World War the debts of many European countries were a tremendous load and at its close the aggregate indebtedness of the nine chief contestants had reached the staggering sum of 236 billions of dollars. During the same period the public debt of the United States increased from less than $\frac{1}{4}$ billion to more than 26 billions. The national debt on June 30 of each year from 1860 to 1924 was as follows:

TABLE 65

GROSS DEBT OF THE UNITED STATES AS OF JUNE 30

[In Millions of Dollars]

YEAR	AMOUNT	YEAR	AMOUNT	YEAR	AMOUNT	YEAR	AMOUNT
1860 . .	65	1890 . .	1,122	1916 . .	1,225	1922 . . .	22,964
1865 . .	2,678	1895 . .	1,097	1917 . .	2,976	1923 . . .	22,350
1870 . .	2,436	1900 . .	1,263	1918 . .	12,244	1924 . . .	21,251
1875 . .	2,156	1905 . .	1,132	1919 . .	25,482	Dec. 31, 1924	20,979
1880 . .	2,091	1910 . .	1,147	1920 . .	24,298		
1885 . .	1,579	1915 . .	1,191	1921 . .	23,976		

Source: Treasury Department.

Ordinary receipts of the federal government. — It was estimated that the federal revenue for 1923–1924 would be derived as follows:

	<i>In millions of dollars</i>
Internal revenue receipts	2,425.0
Custom receipts	425.0
Miscellaneous receipts like fees, fines, Panama Canal tolls, tax on Federal Reserve banks	511.8
Total	3,361.8

It is readily seen that the main reliance of the federal government is the internal revenue receipts, which include the federal income tax, the inheritance tax, and stamp taxes on cigars, cigarettes, tobacco, drugs, etc. Formerly it included licenses and taxes on the liquor business.

The federal income tax. — The federal income tax is ordinarily considered to be the best example of a direct tax, that cannot be shifted from one party to another. It is based upon the ability theory and its rates are progressive. The tax consists of two parts: (1) the normal tax and (2) the surtax.

1. The rates of the normal tax imposed by the revenue acts of 1924 and 1926 are as follows:

	1924	1926
For citizens or residents:		
First \$4,000 in excess of exemptions and credits	2%	1½%
Next \$4,000 in excess of exemptions and credits	4%	3%
Balance net income	6%	5%
For non-resident alien individuals:		
Normal tax on all net incomes in excess of exemptions and credits	6%	5%

2. The surtax is payable on net incomes above \$10,000. The rates are progressive: 1% on incomes up to \$15,000, 2% up to \$17,000, 3% up to \$19,000, etc., culminating in 20% in the law of 1926 as against 40% in the law of 1924, on all incomes of \$200,000 and more.

The subjoined federal income tax tables of 1926 illustrate the operation of both the normal tax and the surtax, and is inserted for purposes of reference.

The most important non-revenue provision of the law of 1926 is the repeal of income tax publicity placed in the law of 1924. Hereafter amounts paid may not be published.

TABLE 66

1925 FEDERAL INCOME TAX TABLES SHOWING AMOUNT OF TAX PAYABLE IN 1926 ON 1925 INCOMES¹

[The subjoined table shows the tax rates and amount of tax on net income subject to normal and surtax in the case of a citizen or resident (married or head of family with no dependents) entitled to a personal exemption of \$3,500.]

AMOUNT OF NET INCOME	TAX RATES, HIGHEST RATE OF TAX			GROSS AMOUNT OF TAX			EARNED INCOME CREDIT	NET AMOUNT OF TAX	
	Normal Tax	Surtax	Normal plus Surtax	Normal Tax	Surtax	Total		On Earned Income	On Unearned Income
\$3,500	None	None	None	None	None	None	None	None	None
3,600	1 1/2 %	1 1/2 %	1 1/2 %	\$1.50	—	\$1.50	\$0.37	\$1.13	\$1.13
3,800	1 1/2 %	—	1 1/2 %	4.50	—	4.50	3.38	3.38	3.38
4,000	1 1/2 %	—	1 1/2 %	7.50	—	7.50	1.12	5.63	5.63
4,200	1 1/2 %	—	1 1/2 %	10.50	—	10.50	1.87	7.88	7.88
9,000	3	—	3	105.00	—	105.00	26.25	78.75	99.38
10,000	3	—	3	135.00	—	135.00	33.75	101.25	129.38
11,000	3	1 %	3	165.00	—	165.00	43.00	131.25	169.38
11,500	3	1	4	180.00	15	195.00	48.75	146.25	189.38
12,000	5	1	6	205.00	20	225.00	56.25	168.75	219.38
26,000	5	7	12	905.00	580	1,485.00	206.25	1,278.75	1,479.38
28,000	5	7	13	1,005.00	720	1,725.00	206.25	1,518.75	1,719.38
30,000	5	8	13	1,105.00	880	1,985.00	206.25	1,778.75	1,979.38
32,000	5	8	13	1,205.00	1,040	2,245.00	206.25	2,038.75	2,239.38
34,000	5	9	14	1,305.00	1,220	2,525.00	206.25	2,318.75	2,519.38
64,000	5	16	21	2,805.00	5,040	7,845.00	206.25	7,638.75	7,839.38
66,000	5	17	22	2,905.00	5,380	8,285.00	206.25	8,078.75	8,279.38
68,000	5	17	22	3,005.00	5,720	8,725.00	206.25	8,518.75	8,719.38
70,000	5	17	22	3,105.00	6,060	9,165.00	206.25	8,958.75	9,159.38
92,000	5	19	24	4,205.00	10,140	14,345.00	206.25	14,138.75	14,339.38
94,000	5	19	24	4,305.00	10,520	14,825.00	206.25	14,618.75	14,819.38
96,000	5	19	24	4,405.00	10,900	15,305.00	206.25	15,098.75	15,299.38
98,000	5	19	24	4,505.00	11,280	15,785.00	206.25	15,578.75	15,779.38
100,000	5	19	24	4,605.00	11,660	16,265.00	206.25	16,058.75	16,259.38
200,000	5	20	25	9,605.00	31,660	41,265.00	206.25	41,058.75	41,259.38
300,000	5	20	25	14,605.00	51,660	66,265.00	206.25	66,058.75	66,259.38
500,000	5	20	25	24,605.00	91,660	116,265.00	206.25	116,058.75	116,259.38
1,000,000	5	20	25	49,605.00	191,660	241,265.00	206.25	241,058.75	241,259.38
2,000,000	5	20	25	99,605.00	391,660	491,265.00	206.25	491,058.75	491,259.38
3,000,000	5	20	25	149,605.00	591,660	741,265.00	206.25	741,058.75	741,259.38
4,000,000	5	20	25	199,605.00	791,660	991,265.00	206.25	991,058.75	991,259.38
5,000,000	5	20	25	249,605.00	991,660	1,241,265.00	206.25	1,241,058.75	1,241,259.38
10,000,000	5	20	25	499,605.00	1,991,660	2,491,265.00	206.25	2,491,058.75	2,491,259.38

¹ Compiled by Joseph J. Mitchell, editor *Income Tax Review*.

Form 1040 A
U. S. INTERNAL REVENUE

FILE RETURN
WITH THE
COLLECTOR OF
INTERNAL
REVENUE FOR
YOUR DISTRICT
ON OR BEFORE
MARCH 15, 1927

INDIVIDUAL INCOME TAX RETURN

FOR EARNED NET INCOMES OF NOT MORE THAN \$5,000
DERIVED CHIEFLY FROM SALARIES AND WAGES
For Calendar Year 1926

PRINT NAME AND ADDRESS PLAINLY BELOW

Taxpayer's Name

(Name)

Taxpayer's Address

(Street and number, or rural route)

Post Office

(Post office)

County

(County)

State

(State)

OCCUPATION Accountant

Cash Check M. O.

Examined

By

Do not write in this space

Serial
Number

Amount
Paid, \$

(Cashier's Stamp)

QUESTIONS

1. Are you a citizen or resident of the United States? Yes
2. Is this a joint return of husband and wife? No
3. If not, is a separate return being filed by your husband or wife? No
4. Were you married and living with husband or wife on the last day of your taxable year? Yes
5. If not, were you on the last day of your taxable year supporting one or more persons closely related to you and living in your household? No
6. If your status in respect to Questions 4 and 5 changed during the year, state date of such change. No
7. How many dependent persons (other than husband or wife) under 18 years of age or incapable of self-support because mentally or physically defective were receiving their chief support from you on the last day of your taxable year? No

INCOME

1. Salaries, Wages, Commissions, etc. (State name and address of person from whom received):

(a) John Doe & Co., 61 Broadway, New York City. \$4,500 00

(b) Curtis Publishing Co., Philadelphia, Pa. 250 00

2. Interest on Bank Deposits, Notes, Mortgages, and Corporation Bonds. 100 00

(a) Interest on bonds upon which a tax of 1½% was paid at source. 25 00

3. Dividends on Stock of Domestic Corporations

4. Other Income (including income from partnerships and fiduciaries) (State source):

(a) Bad debt of Chas. Smith (charged off in 1923)	40 00	
(b) Dividend from foreign corporation	20 00	
5. TOTAL INCOME IN ITEMS 1 TO 4		\$4,935 00
DEDUCTIONS		
6. Taxes Paid	\$ 28 00	
7. Contributions (Explain on reverse side)	35 00	
8. Other Deductions Authorized by Law (Explain below):		
(a) Interest on mortgage on home	100 00	
(b) Interest on indebtedness at bank	125 00	
9. TOTAL DEDUCTIONS IN ITEMS 6 TO 8		\$ 288 00
COMPUTATION OF TAX		
10. Net Income (Item 5 minus Item 9)		\$4,647 00
11. Less: Dividends (Item 3 above)	\$ 25 00	
12. Credit for Dependents	800 00	
13. Personal Exemption	3,500 00	
14. Balance taxable at 1½%, not over \$4,000 (Item 10 minus Items 11, 12, and 13)		\$ 322 00
15. Total Income Tax (1½% of Item 14)		\$ 4 83
16. Less: Income Tax paid at source on tax-free covenant bonds (1½% of Item 2a)	\$ None	
17. Income and profits taxes paid a foreign country or possession of U. S. (Attach Form 1116)	None	
18. Credit of 25% of tax on earned net income (25% of Item 15)	1 21	
19. BALANCE OF TAX (Item 15 minus Items 16, 17, and 18)		\$ 3 62

NOTE.—If you are engaged in a profession or business, including farming, use Form 1040, regardless of amount of income. 2-14026

FIGURE 111. INCOME TAX RETURN FOR 1926 (CONTINUED)

STATEMENT OF CONTRIBUTIONS

NAME OF ORGANIZATION	AMOUNT PAID		NAME OF ORGANIZATION	AMOUNT PAID	
Y. M. C. A.	\$	15 00	Church of St. Peter	\$	20 00

NONTAXABLE OBLIGATIONS AND SECURITIES

OBLIGATIONS AND SECURITIES	AMOUNT OWNED	INTEREST RECEIVED
(a) Obligations of a State, Territory, or political subdivision thereof, or the District of Columbia.	\$ 500 00	\$ 20 00
(b) Securities issued under the Federal Farm Loan Act, or under such Act as amended.	None	None
(c) Obligations of the United States or its possessions.	500 00	21 25

AFFIDAVIT

I swear (or affirm) that this return has been examined by me, and, to the best of my knowledge and belief, is a true and complete return for the taxable year as stated, pursuant to the Revenue Act of 1926 and Regulations issued under authority thereof.

(If return is made by agent, the reason therefor must be stated on this line)

Sworn to and subscribed before me this

(Signature of taxpayer or agent)

day of 1927

(Address of agent)

(Signature of officer administering oath)

(Title)

INSTRUCTIONS

Liability for Filing Return

An income tax return must be filed by every citizen of the United States amount which bears the same ratio to \$3,500 as the number of months during which the taxpayer was married and living with his husband or wife as head of a family, bears to twelve months. This purpose is a fractional part of a month.

State, that he is not a citizen thereof, having a gross income for the calendar year 1926 of \$5,000 or over, and not more than \$10,000, and that he is not a citizen thereof, if single, or if married and living with his husband or wife, or (c) \$1,500 or over, if married and living with husband or wife, or (c) regardless of amount if the net income exceeds the personal exemption.

Items Exempt from Tax

- (a) Amounts received under a life insurance contract paid by reason of the death of the insured.
- (b) Amounts received (other than by reason of the death of the insured) under a life insurance, endowment, or annuity contract, not to exceed the premiums or consideration paid for such contract.
- (c) Gifts (not made as a consideration for services), and property acquired by gift, devise, or inheritance (but the income from such property is taxable).
- (d) Interest upon (a) obligations of a State, Territory, or a political subdivision thereof, or the District of Columbia; (b) Federal Government bonds; and (c) all obligations of the United States and its possessions as to interest on Liberty Bonds owned in excess of \$5,000 is subject to surtax if the net income is over \$10,000.
- (e) Sick amounts received as accident or health insurance for personal injuries or sicknesses received on account of such injuries or sickness.
- (f) Amounts received under (a) Life Insurance and Vocational Rehabilitation Acts, or the World War Veterans Act, in pensions from the United States for services in the military or naval forces in time of war; (b) State pension for services rendered for which the State is paying a pension; (c) Dividends or interest, not exceeding \$300, received from domestic building and loan associations, substantially all the business of which is confined to making loans.
- (g) Rental value of a dwelling house and appurtenances thereof furnished a minister of the gospel as part of his compensation.
- (h) Compensation paid by a State or political subdivision thereof to its officers or employees.
- (i) Compensation received from sources beyond the United States by a citizen who is a nonresident for more than six months of the taxable year.

Personal Exemption and Credits

A single person, or a married person not living with husband or wife, may claim a personal exemption of \$1,500. A person who is the entire taxable year, was the head of a family or was married and living with husband or wife, may claim an exemption of \$3,500.

A head of a family "is an individual who actually supports and maintains in one or more individuals who are closely connected with him by blood relationship and provide for these dependent individuals is based upon some moral or legal obligation.

If husband and wife file separate returns, the personal exemption may be taken by either or divided between them. In addition to the personal exemption, a credit of \$100 may be claimed for each person (other than husband or wife) under the age of 18, or incapable of self-support because mentally or physically defective, or having his or her chief support from the taxpayer on the last day of the taxable year. This credit can be claimed only by the person who furnishes the chief support, and can not be divided between two individuals.

In case the status of a taxpayer changes during the taxable year, the personal exemption shall be an amount which bears the same ratio to \$1,500 as the number of months during which the taxpayer was single bears to twelve months, plus an

CONTINUOUS PRINTING OFFICE

in cases where it shall be required to be paid at a full month. The amount of personal exemption shall not exceed \$1,500 where the head of a family is married during the taxable year.

In the case of an individual who dies during the taxable year, the credits for personal exemption and dependents shall be determined by his or her status at the time of death. Full credits shall also be allowed to the surviving spouse according to his or her status at the close of the taxable year.

General Information

Affidavit.—The oath will be administered without charge by any collector, deputy collector, or internal revenue agent.

Returns.—File the return with the Collector of Internal Revenue for the district in which you reside on or before March 16, 1927.

Tax.—The tax may be paid at time of filing the return, or in four equal installments payable quarterly.

Penalties.—Penalties are imposed by the statute: For willful failure to make and file a return on time, not more than \$10,000 or of the amount of the tax; Imprisonment for not more than one year, or both, and, in addition, 25 per cent of the amount of the tax;

For willfully making a false or fraudulent return, not more than \$10,000 or of the amount of the tax, and Imprisonment for not more than five years, or both, and, in addition, 50 per cent of the amount of the tax; and

For failure to pay the tax, interest on delinquency at 6 per cent per annum to the date the delinquency is paid, and, in addition, the sum of thirty days after the filing of a waiver of the right to file a petition with the Board of Tax Appeals, whichever date is the earlier, and, in addition, 5 per cent of the amount of the tax, or 50 per cent if due to negligence or intentional disregard of rules and regulations without intent to defraud, or 50 per cent of amount of delinquency if due to fraud.

Income

Salaries.—Enter as Item 1 all salaries, wages, or other compensation received from individuals by (a) yourself, (b) your husband or wife if a joint return is filed, and (c) each dependent child.

Interest.—Enter as Item 2 all interest received or credited to your account during the year on bank deposits, notes, mortgages, certificates of deposit, and other interest-bearing securities. Enter as Item 3 the amount received as dividends on stock of domestic corporations, including your share of such dividends on stock owned by a partnership, or an estate or trust.

Other income.—Enter as Item 4 all other taxable income, including dividends on stock of foreign corporations, income of an estate or trust, and your share, whether received or not, in the profits of a partnership.

Deductions

Taxes.—Enter as Item 5 all personal taxes and taxes on property paid during the year. Do not include Federal income taxes imposed upon sales by the manufacturer, nor taxes claimed as a credit against the tax return.

Contributions.—Enter as Item 7 any contributions or gifts during the year to any corporation or fund organized and operated exclusively for religious, charitable, or educational purposes. The amount claimed shall not exceed 15 per cent of the gross income computed without the benefit of this deduction.

List names of persons.—Enter as Item 8 the names of persons over whom you have other deductions authorized by law, including interest paid on personal indebtedness.

9-14250

Exemptions, credits, and contributions. —

1. Personal exemptions are as follows :

(1) Citizens or residents :	
(a) Single person	\$1,500
(b) Married person living with husband or wife	3,500
(c) Head of a family	3,500
(d) Estates	1,500
(2) Non-resident aliens	1,500

2. A credit of \$400 for each dependent is allowed to citizens or residents of the United States and to non-resident aliens who are residents of Canada or Mexico. 3. Losses on investments, bad debts, etc., may be deducted. 4. All ordinary and necessary expenses incurred in earning compensation are deductible, including traveling expenses, automobile upkeep, taxi fares, depreciation on typewriter, etc., telephone and telegraph messages, postage, customers' entertainment expenses, and dues to labor unions. (5) Contributions are also deductible, such as subscriptions to American Legion, to churches (including pew rents), educational musical associations, G. A. R. posts, police pension funds, Y. M. C. A., Y. M. H. A., etc., to an aggregate amount not exceeding 15 per cent of the taxpayer's net income.

The income tax return. — On pages 563, 564, 565, and 566 is presented a completed tax return for 1925 for an accountant, married, with two children. It illustrates many features of the income tax and will repay careful study.

Federal income tax chart. — The chart shown on page 568 was published in the *New York Herald Tribune*, February 27, 1926. It gives the amount of the tax, both normal and surtax, for incomes ranging from \$1,600 to \$1,000,000 for single persons, for married persons, and for married persons with one and with two dependents, and is inserted for purposes of reference.

Federal revenue acts 1913-1926. — Our first Federal income tax was imposed in 1913 and changes were made in 1916, 1917, 1918, 1921, 1924, and 1926. The following interesting comparison of the amount payable under these different revenue acts is also taken from the *New York Herald Tribune* of February 27, 1926, and is inserted for the purposes of reference, page 569.

Federal estate tax. — The Revenue Act of 1924 also includes a tax on estates before they can be transferred to the heirs, *the so-called inheritance tax*. The rates vary from 1% of the amount of the net estate not in excess of \$50,000; 15% of the amount by which the net estate exceeds \$1,000,000 and does not exceed \$1,500,000; and 40% of the amount by which the net estate exceeds \$10,000,000. This tax is based on the ability theory and it is also supposed by its supporters to be in the public interest because it tends to break up huge fortunes.

The Revenue Act of 1926 modifies the estate tax by reducing the maximum tax to 20 per cent as compared with 40 per cent under the Revenue Act of 1924. Further relief is given from duplicate inheritance taxation by increasing the rate of credit for state inheritance tax from 25 per cent to 80 per cent of the Federal tax. The estate tax, payable under the Revenue Act of 1924, has also been retroactively modified to the rate in force under the 1921 Revenue Act.

State inheritance taxes are deductible by the beneficiary if under the state law the tax is imposed upon the right to receive property. In the following states and territories the inheritance tax, by whatever name known, is imposed upon the right to receive property and is deductible by the beneficiary, page 570.

TABLE 67

1925 FEDERAL INCOME TAX CHART SHOWING TOTAL TAX PAYABLE BY A CITIZEN OR RESIDENT ON NET INCOME
SUBJECT TO NORMAL AND SURTAX. 25 PER CENT EARNED INCOME CREDIT

[The first \$5,000 of net income in all cases is deemed to be earned. In no case may the earned net income exceed \$20,000.]

AMOUNT OF NET INCOME BEFORE DEDUCTING EXEMPTIONS	SINGLE PERSON OR MARRIED AND NOT LIVING TOGETHER EXEMPT \$1,500		MARRIED, LIVING TOGETHER OR HEAD OF FAMILY, EXEMPTION \$3,500		MARRIED, LIVING TOGETHER OR HEAD OF FAMILY		
	On Earned Income	On Unearned Income	Total on Earned Income	Total on Unearned Income	One Dependent Exemption \$3,900		Two Dependents Exemption \$4,300
					Total on Earned Income	Total on Unearned Income	
\$1,600	\$1.13	\$1.13	None	None	None	None	None
2,000	5.63	5.63	—	—	—	—	—
2,500	11.25	11.25	—	—	—	—	—
3,000	16.88	16.88	—	—	—	—	—
3,500	22.50	22.50	—	—	—	—	—
4,000	28.13	28.13	\$5.63	\$5.63	\$1.13	\$1.13	\$7.88
4,500	33.75	33.75	16.88	16.88	12.38	12.38	22.88
5,000	39.38	39.38	28.13	31.88	23.63	27.38	37.88
5,500	45.00	45.00	39.38	46.88	34.88	42.38	52.88
6,000	50.63	50.63	46.88	54.38	40.50	49.88	67.88
7,000	78.75	78.75	69.38	69.38	47.25	58.88	82.88
7,500	90.00	106.88	84.38	84.38	54.00	66.38	97.88
8,000	101.25	121.88	95.63	95.63	60.75	73.88	112.88
9,000	153.75	151.88	144.38	144.38	88.88	88.88	137.88
10,000	243.75	191.88	168.75	129.38	92.25	118.88	152.88
12,000	333.75	311.88	258.75	219.38	153.75	200.88	227.88
14,000	438.75	431.88	363.75	339.38	243.75	320.88	302.88
16,000	558.75	571.88	483.75	479.38	348.75	460.88	442.38
18,000	693.75	731.88	618.75	639.38	468.75	620.88	602.38
20,000	853.75	911.88	818.75	819.38	603.75	800.88	782.38
30,000	3,273.75	2,071.88	1,778.75	1,979.38	1,763.75	1,960.88	1,942.38
40,000	4,953.75	3,401.88	3,198.75	3,399.38	3,183.75	3,380.88	3,362.38
50,000	6,873.75	5,171.88	4,878.76	5,079.38	4,863.75	5,060.88	5,042.38
60,000	9,033.75	7,091.88	6,798.75	6,999.38	6,783.75	6,980.88	6,962.38
70,000	11,333.75	9,251.88	8,958.75	9,159.38	8,943.75	9,140.88	9,122.38
80,000	16,133.75	11,551.88	11,258.75	11,459.38	11,243.75	11,440.88	11,422.38
100,000	61,133.75	66,133.75	60,088.75	66,259.38	60,043.75	66,240.88	66,222.38
200,000	41,133.75	41,351.88	41,038.75	41,259.38	41,043.75	41,240.88	41,222.38
300,000	66,133.75	66,351.88	66,038.75	66,259.38	66,043.75	66,240.88	66,222.38
500,000	116,133.75	116,351.88	116,038.75	116,259.38	116,043.75	116,240.88	116,222.38
1,000,000	241,133.75	241,351.88	241,038.75	241,259.38	241,043.75	241,240.88	241,222.38

TABLE 68

COMPARISON OF FEDERAL TAX LIABILITY FOR THE YEARS 1913 TO 1925, INCLUSIVE, UNDER THE FEDERAL REVENUE ACTS SHOWING TOTAL AMOUNT OF TAX ON NET INCOME SUBJECT TO NORMAL AND SURTAX OF A CITIZEN OR RESIDENT WHO IS MARRIED AND LIVING WITH HUSBAND OR WIFE OR WHO IS ENTITLED TO BE CLASSED AS THE HEAD OF A FAMILY.

INCOME TAX LIABILITY UNDER REVENUE ACT OF									
TOTAL NET INCOME	1913	1916	1917	1918		1921		1924	1926
	1913 to 1915 Inclusive	For Year 1916	For Year 1917 on Inc. Other than from Trade or Business	For Year 1918	For Years 1919-1920	For Year 1921	For Year 1922	For Year 1924 on Earned Income up to \$10,000	For Year 1925 on Earned Income up to \$20,000
\$2,000	—	—	\$10	\$30	\$20	—	—	—	—
2,500	—	—	20	60	40	—	—	—	—
3,000	—	—	30	90	60	\$20	—	\$7.50	—
3,500	—	—	40	120	80	40	—	15.00	—
4,000	—	—	60	150	100	60	—	22.50	—
4,500	—	—	80	180	120	80	—	30.00	—
5,000	\$5	\$10	10	20	80	100	—	37.50	\$5.63
6,000	20	20	30	250	170	100	—	45.00	11.25
7,000	30	60	260	390	270	170	—	52.50	16.88
8,000	40	80	395	530	370	270	—	60.00	28.13
9,000	50	100	535	680	480	370	—	67.50	39.38
10,000	60	120	675	830	590	480	—	75.00	58.25
15,000	110	220	1,450	1,670	1,230	590	—	105.00	75.75
20,000	160	320	2,300	2,630	1,990	1,230	—	135.00	101.25
25,000	260	470	3,300	3,720	2,880	1,990	—	165.00	131.25
30,000	360	620	4,300	4,930	3,890	2,880	—	195.00	161.75
40,000	560	920	6,300	7,730	6,290	3,890	—	225.00	178.75
50,000	760	1,320	8,700	11,030	9,190	6,290	—	255.00	208.75
60,000	960	1,720	11,470	14,630	12,630	9,190	—	285.00	238.75
75,000	1,510	2,470	15,450	21,470	18,630	12,630	—	315.00	268.75
100,000	2,510	3,920	23,700	35,030	31,190	18,630	—	345.00	298.75
200,000	7,510	11,420	64,700	101,030	93,190	31,190	—	375.00	328.75
300,000	13,010	20,920	116,200	173,030	161,190	93,190	—	405.00	358.75
500,000	25,010	42,920	232,200	323,030	303,190	161,190	—	435.00	388.75
1,000,000	60,010	102,920	584,700	703,030	663,190	303,190	—	465.00	418.75
						663,190	550,640	429,575.00	241,058.75

Compiled by Joseph J. Mitchell, editor *Income Tax Review*.

Alaska	Louisiana	Oklahoma
Arizona	Maine	Ontario (Canada)
Arkansas	Michigan	Oregon
California	Massachusetts	Rhode Island
Colorado	Minnesota	South Carolina
Connecticut	Missouri	South Dakota
Delaware	Montana	Tennessee
Georgia	Nebraska	Texas
Hawaii	Nevada	Vermont
Idaho	New Hampshire	Virginia
Illinois	New Jersey	Washington
Indiana	New York	West Virginia
Iowa	North Carolina	Wisconsin
Kansas	North Dakota	Wyoming
Kentucky	Ohio	

In the following states the inheritance tax is imposed upon the right to transmit property and is an allowable deduction of the estate, but not of the beneficiary :

Utah	Maryland	Pennsylvania
	Rhode Island	

The following table shows the wide sweep of the reductions in the federal estate tax accomplished (1) by the lowering of the rates in all the higher brackets, and (2) by the increase from 25% to 80% of the credit on account of state

TABLE 69¹

VALUE OF ESTATE	1926 TAX, GROSS	1926 TAX, NET	1924 TAX, GROSS	1924 TAX, NET
\$100,000	—	—	\$500	\$395
200,000	\$1,500	\$300	3,000	2,250
500,000	12,500	2,500	19,000	14,250
1,000,000	41,500	8,300	70,000	52,500
2,000,000	124,500	24,900	232,000	174,000
5,000,000	489,500	97,900	947,500	710,625
10,000,000	1,334,500	266,900	2,543,500	1,907,625

¹ Courtesy of *Barron's*.

TABLE 70
PERSONAL AND CORPORATION INCOME TAX RETURNS
SUMMARY SINCE INITIATION OF TAX

YEAR	NUMBER OF RETURNS		NET INCOME		TAX YIELD										
	Corporation		Personal	Corpora- tion	Personal			Corporation							
	PER- SONAL ¹	Re- porting Taxable Income			Report- ing No Taxable Income	Grand Total	Total	Normal	Surtax	Total	Income Tax	War and Excess Profits			
Thousands of Dollars															
1909	.	52,498	209,992	—	3,590	—	—	—	—	—	—	—	—	—	—
1910	.	54,040	216,162	—	3,761	—	—	—	—	—	—	—	—	—	—
1911	.	55,129	233,223	—	3,503	—	—	—	—	—	—	—	—	—	—
1912	.	61,116	244,220	—	4,151	—	—	—	—	—	—	—	—	—	—
1913	.	357,598	188,866	128,043	3,900	4,714	71,381	28,254	12,728	15,525	43,128	43,128	—	—	—
1914	.	357,515	174,205	125,240	4,000	3,940	80,191	41,046	16,559	24,487	39,145	39,145	—	—	—
1915	.	336,652	190,911	175,532	4,600	5,310	124,937	67,944	23,996	43,948	56,994	56,994	—	—	—
1916	.	437,036	206,984	134,269	6,299	8,766	345,192	173,387	51,441	121,946	171,805	171,805	—	—	—
1917	.	3,472,890	232,079	119,347	13,652	10,730	2,937,827	691,493	156,897	534,596	2,142,446	503,698	1,638,748	—	—
1918	.	4,425,114	202,061	115,518	15,925	8,362	4,286,486	1,127,722	476,433	651,289	3,158,764	653,198	2,505,566	—	—
1919	.	5,332,760	209,634	110,564	19,859	9,412	3,444,972	1,269,630	468,105	801,525	2,175,342	743,536	1,431,806	—	—
1920	.	7,259,944	203,233	142,362	23,736	7,903	2,700,288	1,075,054	478,250	596,804	1,625,235	636,508	988,728	—	—
1921	.	6,662,176	171,239	185,158	19,577	4,336	1,420,963	719,387	308,059	411,328	701,575	366,444	335,132	—	—

¹ Statistical Abstract of the United States, 1923.

taxes paid. The gross and net taxes under the 1926 and 1924 Acts are given, assuming that the state taxes will be sufficient to take up the maximum credit allowed by the federal government.

Federal indirect taxes. — Stamp taxes and custom duties are indirect taxes because they are generally shifted to the shoulders of others by those who pay them. The manufacturer of cigars, cigarettes, and playing cards pays the tax to the government and then adds the amount of the tax to his price. The importer of silk or any other dutiable article pays the duty to the government and then adds the amount of the duty to his price.

Federal corporation tax. — This tax brought into the Federal Treasury over 80 millions in the fiscal year ending June 30, 1922, but it was repealed by the law of 1926; it was a tax of \$1.00 on each \$1000 of the capital stock; in its place the rate of tax on the income of corporations has been increased to 13 per cent for 1925 and $13\frac{1}{2}$ per cent thereafter.

Every domestic corporation is required to pay annually a special excise tax for the privilege of carrying on or doing business equivalent to \$1 for each \$1,000 of so much of the fair average value of its capital stock for the preceding year ending June 30 as is in excess of \$5,000, and in estimating the value of capital stock the surplus and undivided profits must be included, *e.g.*, a corporation having capital stock and undivided surplus of \$125,000 would pay \$120.



STATE FINANCE

State expenditures. — The purposes for which the state governments spend money are not unlike those of the federal government. Figure 71, on the following page, shows the expenditures of the 48 states for the year 1922.

TABLE 71¹

	AMOUNT (THOUSANDS OF DOLLARS)	PER CAPITA (DOLLARS)	PER CENT OF TOTAL
Governmental cost payments, total	1,280,238	11.82	100.0
General Departments, total	918,187	8.48	71.7
General Government	71,206	.66	7.8
Protection to person and property	52,738	.49	5.7
Development and conservation of natural resources	42,022	.39	4.6
Health and sanitation	21,996	.20	2.4
Highways	106,337	.98	11.6
Charities, hospitals, and corrections	162,469	1.50	17.7
Education	331,866	3.07	36.1
Recreation	1,870	.02	.2
Miscellaneous	127,683	1.18	13.9
Public-service enterprises	2,697	.02	.2
Interest	41,308	.38	3.2
Outlays, total	318,045	2.94	24.8
Highway construction	243,479	2.25	19.0
All other	74,566	.69	5.8

TABLE 72¹

	AMOUNT (THOUSANDS OF DOLLARS)	PER CAPITA (DOLLARS)	PER CENT OF TOTAL
Revenue receipts, total	1,159,445	10.71	100.0
General property taxes	348,291	3.22	30.0
Special property and other special taxes, total	196,082	1.18	16.9
Inheritance taxes	66,046	.61	5.7
Income taxes	29,330	.27	2.5
Corporation taxes	49,833	.46	4.3
Bank stock taxes	13,999	.13	1.2
All other	36,874	.34	3.2
Poll taxes	8,323	.08	.7
Licenses	305,367	2.82	26.3
Special assessments	9,410	.09	.8
Fines, forfeits, and escheats	6,002	.06	.5
Subventions and donations	110,716	1.02	9.5
Interest, rents, and highway privileges	55,006	.51	4.7
Earnings of general departments	116,549	1.08	10.1
Earnings of public-service enterprises	3,699	.03	.3

¹ Statistical Abstract of the United States, 1923.

You will find the purposes of expenditure and the amount devoted to each. It will be noted that the largest item of the states' expenditures is \$331,000,000 for education, but the two items, highways and highway construction, amount to \$349,000,000.

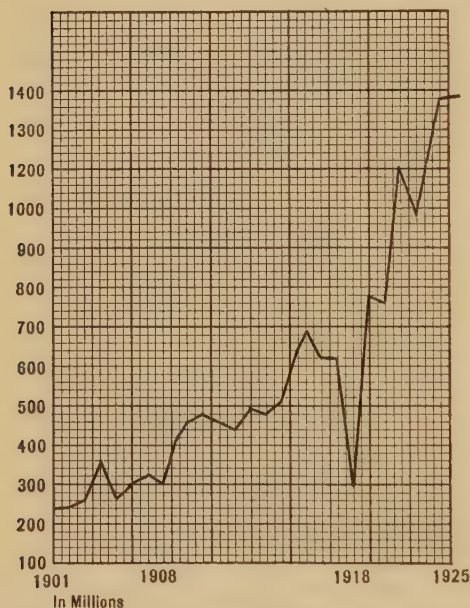


FIGURE 112. INCREASE IN STATE AND LOCAL DEBTS 1901-1925

State revenues. —

The principal sources of revenue for the states are various kinds of taxes. The different items of revenue of the 48 states for 1922 are presented in the preceding table on page 573.

From Table 72 it appears that the largest single source of state revenue is the general property tax which in 1922 furnished 30%. Special property and other taxes furnished 16.9%, and licenses furnished 26.3%.

State debts. —

Like the federal government the state governments have borrowed money either to meet an emergency or for the purposes of permanent improvement. The specific ends served by borrowing are most various as is indicated by the following table for 1922.

Highways, waterways, harbors, and other improvements are responsible for 60% or 681 millions, while a little less than 17 millions was borrowed for educational purposes.

The increase in state and local debts is explained and illustrated by the preceding diagram which presents the amounts of state and municipal bonds sold each year for the period 1901-1925. In 1901 the amount was \$131,000,000 and in 1925 it was the amazing total of \$1,391,000,000.

LOCAL FINANCE

Local expenditures. — The object of local public expenditures are similar to those of the States; they include general government expense, protection to person and property, health and sanitation, highways, charities, hospitals, and corrections, education, which includes schools and libraries, and recreation.

TABLE 73¹

BONDED INDEBTEDNESS OF STATES BY PURPOSES OF ISSUE

[All figures except per capita in thousands of dollars; that is, 000 omitted]

	EDUCATION	WELFARE INSTITUTIONS	AGRICULTURAL AID	PUBLIC BUILDINGS	HIGHWAYS	WATERWAYS AND HARBORS	OTHER IMPROVEMENTS	SOLDIERS' BONUS	OTHER MILITARY PURPOSES	TOTAL
Total	16,904	19,711	45,156	20,255	367,687	213,891	101,551	130,022	18,441	1,071,507

¹ Statistical Abstract of the United States, 1923.

In Table 74, page 576, the totals are given for these various items for the year 1922 for all cities in the United States of 100,000 or more inhabitants, and the individual expenditures for the same items by the ten largest cities.

It will be noted that municipal expenditures for schools exceed the sum of any other two items combined. The expenditure for protection to person and property ranks second, and that for health and sanitation ranks third.

TABLE 74¹

CITY NUM- BER IN ORDER OF SIZE	CITY	TOTAL GOVERNMENT COST PAYMENTS (THOUSANDS OF DOLLARS) FOR —								
		Gen- eral Gov- ern- ment	Protec- tion to Person and Prop- erty	Health and Sanita- tion	High- ways	Char- ities, Hos- pitals, and Cor- rec- tions	Education		Recre- ation	Mis- cella- neous
							Schools	Libra- ries		
	Total	98,382	211,323	105,789	87,193	72,275	374,426	12,784	35,664	46,555
1	New York, N. Y. . .	25,636	49,292	25,839	14,690	20,335	93,323	1,995	5,709	16,585
2	Chicago, Ill. . . .	11,770	20,051	11,835	6,688	4,735	33,034	957	5,473	4,324
3	Philadelphia, Pa. .	7,429	14,455	5,521	8,469	4,989	19,896	457	2,337	5,436
4	Detroit, Mich. . .	3,063	8,398	4,906	4,266	4,361	12,671	946	1,894	1,125
5	Cleveland, Ohio . .	2,942	5,069	3,114	2,430	1,863	12,861	826	485	1,407
6	St. Louis, Mo. . .	2,404	5,438	1,999	2,172	2,080	7,760	328	1,087	342
7	Boston, Mass. . .	3,465	7,281	5,355	3,385	3,375	12,373	639	1,964	3,253
8	Baltimore, Md. . .	1,941	4,453	2,773	2,914	1,247	6,433	256	775	490
9	Los Angeles, Calif. .	2,405	4,475	1,499	2,248	1,809	9,105	474	700	401
10	Pittsburgh, Pa. . .	3,477	4,020	2,838	2,600	1,756	8,380	582	802	779

TABLE 75¹

CITY NUM- BER IN ORDER OF SIZE	CITY	TOTAL RECEIPTS (THOUSANDS OF DOLLARS) FROM —							
		Taxes			Special Assess- ments and Special Charge for Outlays	Earnings of —		High- way Privi- leges, Rents of In- vest- ment Prop- erties and In- terest	All Other
		General Property	License	Other		Public- Service Enter- prises	Gen- eral De- part- ments		
	Total	1,095,897	47,836	35,457	78,066	41,468	145,890	86,099	106,308
1	New York, N. Y. . .	289,019	11,886	13,542	9,284	5,266	26,592	27,317	25,544
2	Chicago, Ill. . . .	104,083	6,463	—	13,708	4,469	9,568	8,583	6,687
3	Philadelphia, Pa. .	61,661	1,534	77	991	3,219	6,726	13,110	2,771
4	Detroit, Mich. . .	44,647	1,103	592	4,760	2,983	6,612	859	3,563
5	Cleveland, Ohio . .	38,601	739	295	2,516	1,725	6,076	2,182	1,322
6	St. Louis, Mo. . .	23,854	2,385	46	1,835	1,103	3,031	1,787	1,340
7	Boston, Mass. . .	38,190	328	6,617	287	1,993	4,109	4,398	5,666
8	Baltimore, Md. . .	21,567	862	544	665	312	2,565	2,798	1,155
9	Los Angeles, Calif. .	28,205	2,484	—	5,256	1,295	7,732	973	3,727
10	Pittsburgh, Pa. . .	29,157	502	538	723	1,115	2,907	1,152	1,289

¹ Statistical Abstract of the United States, 1923.

Local revenues. — The principal sources of revenue for the cities are taxes, chiefly the general property tax and licenses, special assessments, earnings of the general departments and public service enterprises, highway privileges, rents of investment properties and interest. In Table 75, page 576, the totals are given for these various items for the year 1922 for all cities of the United States of 100,000 or more inhabitants, and the individual revenues for the same items in the ten largest cities.

It will be noted that the income from the general property tax in the cities is more than twice that from all other sources combined.

Local government debts. — Our local governmental bodies, counties, cities, towns, villages, townships, and school districts have been running into debt and mortgaging the future at a startling rate during the past forty years. The following table gives the figures for the years 1880, 1890, 1902, 1912, and 1922 both as to amount and per capita.

TABLE 76¹

DEBTS OF LOCAL GOVERNMENT

COMBINED GROSS DEBT LESS SINKING FUND ASSETS OF COUNTIES, CITIES, TOWNS, VILLAGES, TOWNSHIPS, SCHOOL DISTRICTS, AND ALL OTHER CIVIL DIVISIONS

	AMOUNT (THOUSANDS OF DOLLARS)					PER CAPITA (DOLLARS)				
	1880	1890	1902	1912	1922	1880	1890	1902	1912	1922
Total	848,533	925,990	1,630,070	3,475,954	7,751,559	16.92	14.79	20.74	35.81	(²)

¹ Statistical Abstract of the United States, 1923.² Not computed.

The growth of public debts. — Many thoughtful citizens have become alarmed at the appalling increase in recent years of the debts owed by the Federal, the State, and local

political units of government. Even if allowance be made for the depreciating purchasing power of the dollar, the figures are sufficiently startling to arrest attention. The following table gives the data for the years 1880, 1890, 1902, 1912, and 1922 both as to amounts and per capita for the net debt of all classes of government organizations in the United States.

TABLE 77¹

PUBLIC DEBT

NET DEBT (GROSS DEBT LESS SINKING FUND ASSETS) OF ALL CLASSES OF
GOVERNMENT ORGANIZATIONS IN THE UNITED STATES

Government organization	1880	1890	1902	1912	1922
Total (thousands of dollars) . . .	3,042,606	1,989,113	2,834,436	4,850,458	30,842,989
National	1,919,327	851,913	969,457	1,028,564	22,155,886
States	274,746	211,210	234,909	345,940	935,544
Counties	124,105	145,048	196,565	371,528	1,272,790
Incorporated places and all other civil divisions	724,428	780,942	1,433,505	3,104,426	6,478,769
Per capita (dollars) :					
National	38.27	13.60	12.22	10.59	203.78
States	5.48	3.37	2.99	3.57	8.64
Counties	2.47	2.51	2.80	4.33	13.18
Incorporated places and all other civil divisions	(²)	(²)	(²)	(²)	(²)

¹ Statistical Abstract of the United States, 1923.

² Not computed.

From this table it appears that the total per capita public debt was as follows :

YEAR	PER CAPITA
1880	\$46.22
1890	21.48
1902	17.92
1912	18.49
1922	225.60

Secretary Mellon stated (May, 1926) that while Federal taxes have been reduced from \$54 per capita in 1920 to \$27

in 1925, those of states and municipalities have increased from \$31 per capita in 1920 to nearly \$43 in 1924, and seem to be still mounting. During the last six years the national debt has been reduced by \$4,969,000,000, whereas state and local indebtedness has increased by over \$6,740,000,000. At the close of this period the annual expenditures of the federal government had decreased by \$2,953,000,000, while the annual expenditures of state and local governments had increased by more than \$3,000,000,000.

PRINCIPLES AND THEORIES OF TAXATION

Fees and special assessments. — These are both somewhat like taxes, but not quite the same.

A fee is defined by

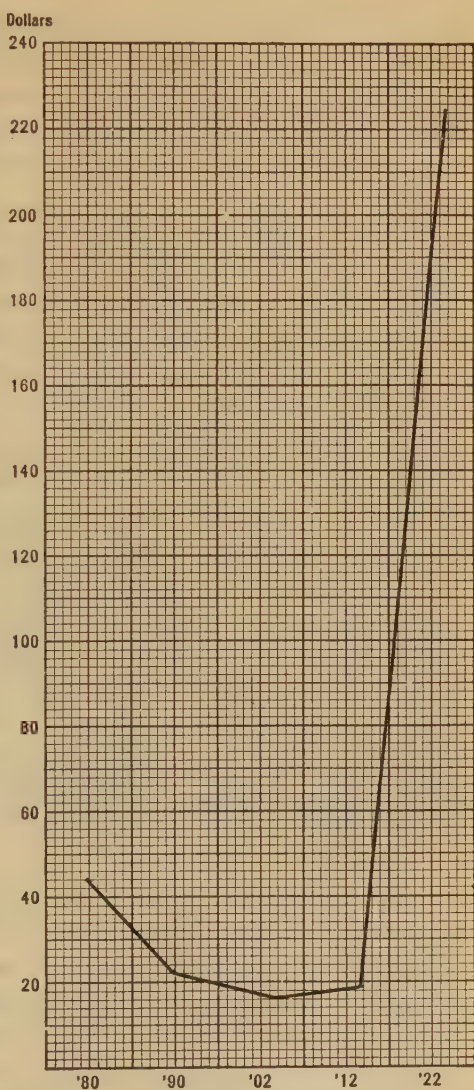


FIGURE 113. PER CAPITA PUBLIC DEBT IN THE UNITED STATES, 1880-1922

Ely and Wicker as "*a payment made to the state on the occasion of some specific service rendered by the state to the citizen — the service, however, being non-commercial.*" The payment demanded for recording a deed or a mortgage is a fee; so is that required when a blushing couple obtain a marriage license.

A special assessment is a "*compulsory contribution, levied in proportion to the special benefits derived to defray the cost of a specific improvement to property, undertaken in the public interest.*" You will recall that when you moved into your new home, several chapters back, the street in front of it had never been paved; shortly afterwards the city paved the entire street. Part of that expense was borne by the city and part of it was assessed against the property immediately benefiting from the improvement. The special assessment as a type of taxation is peculiarly American; it is seldom resorted to abroad.

Taxes. — The most important source of revenue both of the Federal and local governments is taxation.

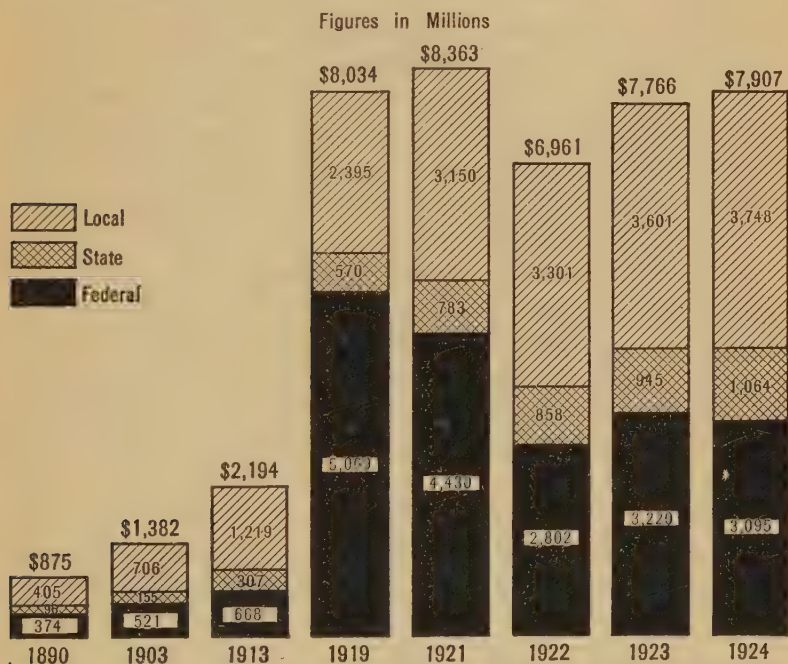
A tax has been defined as "*a compulsory contribution of property taken by government from persons, individuals or corporate, under a general levy, applied to one or more classes of persons or property, and without any special and individual service being received in return by the individual or corporate contributor.*"

Taxes differ from fees and special assessments mainly in that no attempt is made to apportion the tax with any reference to benefit conferred.

Equity in taxation. — No problem in taxation arouses more heated discussion than this. When it comes to paying taxes, every one suddenly becomes a model of politeness; each says to the other "*après vous, s'il vous plaît.*" There are three theories of taxation, each of which has its champions who claim that it gives the fairest basis for a just tax.

1. The *cost theory* holds that the government should take taxes from each in accordance with the expense or cost which government incurs in his behalf.

2. The *ability theory* holds that each should pay on the basis of his ability to pay.



Courtesy of the National Industrial Conference Board

FIGURE 114. TAXATION IN THE UNITED STATES

3. The *benefit theory* holds that each should pay in accordance with the benefit or service which he receives from the state.

In practice no one of these theories is applied exclusively ; each is the basis for some tax or public charge — for example, the special assessment is based on the cost theory and

the benefit theory, the income tax on the ability theory, or custom duties on the benefit theory.

Adam Smith's canons of taxations. — 1. The subjects of every state ought to contribute towards the support of the government as nearly as possible *in proportion to their respective abilities*; that is, *in proportion to the revenue which they respectively enjoy under the protection of the state*. The expense of government to the individuals of a great nation is like the expense of management to the joint tenants of a great estate, who are all obliged to contribute in proportion to their respective interests in the estate. In the observation or neglect of this maxim consists what is called the equality or inequality of taxation.

2. The tax which each individual is bound to pay ought to be *certain and not arbitrary*. The time of payment, the manner of payment, the quantity to be paid, ought to be clear and plain to the contributor and to every other person.

3. Every tax ought to be *levied at the time, or in the manner*, in which it is most likely to be *convenient for the contributor to pay it*.

4. Every tax ought to be so contrived as both *to take out and to keep out of the pockets of the people as little as possible over and above what it brings into the public treasury of the state*.

Classification of taxes. — A. On the basis of their incidence, taxes are (1) direct or (2) indirect.

1. A *direct tax* is, by definition, *a tax that cannot be shifted*; its burden is borne by the person who pays it.

2. An *indirect tax* is, by definition, *a tax, the burden of which is not borne by the person who pays it but it is shifted to others*.

That is the meaning ordinarily given to these two terms; but it is claimed that, as a matter of fact, almost every kind

of a tax, under some circumstances, can be shifted; for this reason some writers use a different basis for the division of taxes into direct and indirect. According to these writers, *a direct tax is levied upon persons or property, and an indirect tax is levied upon various objects of use and consumption.* On this basis the following would be direct taxes: a poll tax, a tax on personal and real property, an occupation tax, an income tax, an inheritance tax, a corporation tax. On this basis the following would be indirect taxes: internal revenue taxes, import duties, and stamp taxes on papers.

B. On the basis of the rate, taxes are (1) proportional, (2) progressive, or (3) regressive. — 1. *Proportional taxes are at a fixed rate, as 5% on the value of a dutiable import or 2% on one's annual income.* 2. *Progressive taxes increase as the amount taxed increases, as 2% on an income of \$4,000, 4% on all above \$4,000 up to \$8,000, and 6% on all above \$8,000.* 3. *Regressive taxes are taxes, the burden of which increases as the amount taxed decreases, as a \$20 license on a retail store; the smaller the business transacted the larger the proportionate burden.*

The general property tax. — We have seen that in 1922 30% of the revenues of our 48 States was derived from the general property tax, and that in cities of 100,000 and more inhabitants the income from the general property tax was more than twice that of all other sources combined. It is no exaggeration to say that the general property tax is the backbone of the tax systems of our State and local governments. Exactly what is the general property tax? (Pages 573, 577.)

As its title implies, it is a tax supposed to be levied against all property both real and personal, tangible and intangible. However, in practice, the supposition that it is in reality levied against *all* property is “*contrary to fact.*” If you have studied Latin, possibly you have met with such sup-

positions before ; if so, doubtless you know their grammatical peculiarities.

There are two inequities in levying the general property tax.

First, it discriminates against real property and in favor of personal property. The practical outcome is that the burden of the tax is thrown upon real estate. The burden of the tax is thrown upon real estate because real estate cannot be hidden and it cannot be moved ; personal property can be hidden and it can be moved. In early days when the State governments were not expensive, they derived their revenues from the sale of land and from various forms of excise or license taxes ; but as the States increased their functions they began to enlarge their revenues by assessments of real and personal property made by local officials as the basis of raising local revenue. Then the local officials began the practice of deliberate undervaluation of property, the reason being that if property was listed at half its value, the same local revenue could be raised by doubling the rate while only half as much would be taken away from local residents for the purpose of supporting the State. State " boards of equalization " attempted to remedy this inequality, but with small success.

Second, it discriminates against some persons and in favor of others. This is inevitable under modern conditions. Stocks and bonds, notes and other securities are easily concealed, and the attempt to levy against them places a premium on dishonesty ; the dishonest man escapes the tax-gatherer while the honest man is penalized because he tells the truth concerning his possession of intangible wealth. The judgment passed upon the general property tax by George E. Roberts is true and righteous altogether : "*The general property tax is thoroughly discredited with all students of the subject.*"

Assessment percentage. — The United States Census Bureau estimates (1922) that the taxable real property in the various states is assessed at the percentages of true value shown below :

TABLE 78

Alabama . . .	47.7%	Maine . . .	52.0%	Ohio . . .	70.2%
Arizona . . .	81.0	Maryland . .	64.0	Oklahoma . .	62.3
Arkansas . . .	22.6	Massachusetts	77.5	Oregon . . .	43.5
California . .	46.6	Michigan . .	85.2	Pennsylvania .	57.8
Colorado . . .	73.6	Minnesota . .	34.7	Rhode Island .	80.0
Connecticut . .	63.2	Mississippi .	44.5	So. Carolina .	20.3
Delaware . . .	77.5	Missouri . .	59.1	So. Dakota . .	82.6
Florida . . .	20.0	Montana . .	28.7	Tennessee . .	57.8
Georgia . . .	37.9	Nebraska . .	70.1	Texas . . .	40.2
Idaho . . .	50.0	Nevada . . .	50.0	Utah . . .	61.4
Illinois . . .	24.1	N. Hampshire	79.5	Vermont . . .	55.0
Indiana . . .	80.2	New Jersey .	63.2	Virginia . . .	40.7
Iowa . . .	12.7	New Mexico .	43.0	Washington .	28.0
Kansas . . .	65.7	New York . .	84.8	W. Virginia .	40.0
Kentucky . . .	71.0	N. Carolina .	75.7	Wisconsin . .	85.3
Louisiana . .	68.9	N. Dakota . .	76.0	Wyoming . . .	72.4

Thus Wisconsin would value a piece of real property at nearly seven times as much as Iowa would for equal real value.

Tax-exempt securities. — For constitutional reasons, the Federal income tax is not imposed upon interest derived from State and municipal bonds. There are at least 12 billions of such bonds outstanding. A rich taxpayer subject to a 40% tax rate by the purchase of a 6% railway bond will net only 3.6%, but he can buy State or municipal bonds that net him 4 to 5% because they are exempt from the Federal income tax. Of course he will change his investments into the tax-exempt bonds — you would, would you not, if you were he?

The results will be —

1. Avoidance of the Federal tax and consequent loss of revenue by the Federal government.

2. A premium will be placed on State and local borrowing which will pile up State and local debts.

3. An unfair discrimination against industrial and railway bonds which unfavorably affects economic progress.

4. The creation of a class of wealthy investors which escapes its share of the cost of our public institutions. *Tax-exempt bonds and progressive income taxation are inconsistent.*

The shifting and incidence of taxation. — A tax does not always remain where it is placed. Excise taxes and custom duties are usually levied with the expectation that they will be passed on or *shifted* from the business man who pays them to the one who buys the goods; in other words, "the consumer pays the tax."

In such a case "shifting" a tax is accomplished by increasing the price by which the original payer of the tax endeavors to shift the burden of the tax to others. Usually he tries to add a little "profit" to it to recompense him for his trouble in paying the tax and to recoup himself for the interest on his money thus tied up. This increase in price is ordinarily accompanied by economic disturbance which is hidden and often difficult to trace, although it is of great importance.

Whether or not a given tax can be shifted will depend upon many circumstances too intricate for our study; if you specialize in Economics in college, you may study this difficult subject. The "incidence" of a tax refers to bearing the burden of the tax; if the incidence of a tax falls on you, then you are the burden-bearer of the tax because you cannot shift that burden to others.

Elements of an ideal tax system. — Adam Smith's Four Canons of Taxation set forth desirable features of a just system. They are:

1. Taxes should be equal and just.
2. Taxes should be certain and regular and not arbitrary.
3. Taxes should be levied conveniently to the citizen.
4. Taxes should be capable of inexpensive collection.

In addition to these elements of an ideal system of taxation it has been suggested by students of the problem that

5. Taxes should furnish sufficient revenue.
6. Taxes should be elastic in order that they can be adjusted to changing needs of government.
7. Taxes should be consistent with high industrial efficiency; they should not discourage enterprise.
8. Every tax system should be adjusted to the actual legal, political, and social conditions of the country. In the United States there should not be duplication of taxes; we should have one income tax, one inheritance tax, one corporation tax, and so forth.
9. The tax system should be as permanent and unchanging as possible; "the old tax is the best tax."
10. It must get contributions from the masses if it is to be productive and elastic; if every one pays, *and knows that he pays*, then every one will be interested in the government.
11. A tax system should be dependent on several sources of revenue.
12. Taxes, in general, should be placed where it is intended that they should rest; that is, "shifting" of taxes should be avoided.
13. A tax system, as far as possible, should be easily understood by the great mass of the people.

EXERCISES AND PROBLEMS

I

1. Give two reasons why we study Public Finance.
2. What are the divisions of Public Finance?
3. In what important particular does government finance differ from personal or business finance?
4. Give five aims of a government budget.
5. What is the fourfold classification of Federal expenditures?
6. What are the important items under "General Functions"? "Military Functions"? "Civil Functions"? "Non-functional Expenditures"?
7. What proportion of the Federal expenditures are for war?
8. Give the classification of Public Revenues.
9. Under what circumstances is it allowable for governments to borrow?
10. What was the debt of the United States in 1860? in 1924? Account for the increase.
11. Name the three principal sources of Federal revenue in 1924. Which was the most important?
12. What are the two parts of the Federal income tax?
13. Are the rates of the Federal income tax proportional, progressive, or regressive?
14. What is the surtax on an income of \$92,000? \$200,000?
15. What is the tax on an income of \$10,000 and of \$20,000 for a single person? Man and wife? Man, wife, and one child? Man, wife, and two children? Man, wife, and three children?
16. Give the provisions of the Federal Estate Tax.
17. Name two Federal indirect taxes.
18. Name the important items of State expenditures. Which are the largest?
19. Name the important sources of State revenue.
20. What are the important purposes for which States borrow money?
21. Name the principal items of local government expenditures.

22. Name the principal items of local government revenue. Which is the most important?

23. What has been the tendency of Public Debts during the past ten years? Account for it.

24. Define fees and assessments.

25. What are the three theories of taxation?

26. Give in your own words Adam Smith's celebrated "Four Canons of Taxation."

27. What is the general property tax? What are its two inequities?

28. What are "tax-exempt" securities? What four pernicious results flow from them?

29. What is meant by "the shifting and incidence of taxation"?

30. What are the most important elements of an ideal tax system?

II

1. The tax rate in a country town in Massachusetts is \$5; a city 15 miles distant has a tax rate of \$18.10. Explain the bearing of these facts upon the streets, salaries of public officials, schools, tax-dodging.

2. A man who had been saving for several years was recently heard to complain bitterly against the income tax because he said that his neighbor, who had not saved, had received a good time from spending money whereas he (the man who saved) was rewarded only by having his income taxed. Has the man who saved a real grievance?

3. Should you favor a tax of one per cent of the market value on all transfers of corporation securities?

4. Who pays the tax on buildings, the owner or the tenant? (If the tax rate of a city is raised 50 cents on \$1000, does this mean a corresponding increase in the amount paid by the tenant?)

5. Give all the reasons why a city should spend part of its revenue in providing playgrounds and other recreation facilities for the people.

6. Is it advisable to exempt the poorer classes (a) from all taxes; (b) from taxes on incomes?

7. Having been driven apparently out of Congress, the sales tax proposed is commending itself again for consideration as being suitable in operation, general in its incidence, economical in collection, and, as a supplement to a graded income tax, a measure that rests with fair equity upon all. Discuss.

8. The sales tax takes money from the classes least able to pay. Name and explain two theories of taxation and show the application of each to the sales tax.

9. A well-known economist has said, "Taxes on expenditure not only prevent a relatively greater burden on the rich in keeping with their relatively greater capacity as measured by their wealth, but actually impose a relatively greater burden on the poor, thus creating an upside-down progressive system."

(a) What is progressive taxation?

(b) State the law in economics which deals with expenditure.

III

1. State in the form of a connected argument reasons for or against each of the following forms of taxation: the single tax, the income tax, the inheritance tax.

2. Name five sources of the revenue of New York State and mention five important purposes for which this revenue is expended.

3. Name five different kinds of taxes. Explain one of them.

4. Give two arguments for and two against the general property tax.

5. Show how a poor man whose tax bill is nothing really pays taxes, both national and local, in substance if not in form.

6. Name and explain four kinds of taxes collected by the Federal government.

7. State the arguments for a Federal tax on net industrial profits in excess of 8%.

8. State and describe two methods by which the United States Government raised money to carry on the World War.

9. What is the general property tax? Give three reasons against this tax.

10. "Government financial policy can no longer be ignored in our business life; it affects every business enterprise." Explain the meaning of this statement, citing two illustrations to show the connection.

11. State three qualities of a good tax. Judging by these qualities, discuss the soundness of the New York State income tax.

12. What two basic principles of taxation underlie the United States income tax? Give the chief features of this tax.

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L'ENVOI¹

An epochal age. — “Historians of the present, writing in the future, will have much to record of the achievements and failures of, and the opportunities seized and lost by, our generation. Ours is an epochal era in material development by mankind ; it is a test period of a new social and economic order in which those in the places of leadership will prove themselves or be found wanting in the qualities upon which the realization of the established order’s hope for the greatest good to the greatest number depends.

“Of those who do not believe that the greatest good to the greatest number is the purpose of the best of the political and economic leadership of the day, it may be said some are cynics, some are ignorant of the significance of current thought and action, and some are merely perverse. Responsible leadership does desire, and perhaps always has desired, the material advancement of all, from the humblest to the greatest, but in some the desire has been inactive and apathetic, and in others it has not been supported by the abilities that are required for achievement. Agreement as to purposes is easily arrived at ; difficulties arise only when a choice of methods is discussed, and these difficulties long ago taught practical men that ‘programs’ are hard to arrange and harder to carry out. As a result, they have not striven to arrive at the millennium through legislation ; they have tacitly adopted the plan of advancing in a more or less disorderly manner at the rate set by a few pace-makers. This is the method of progress which we have called the ‘competitive system.’

“The achievements of that system, in terms of material welfare, confirm the wisdom of the leadership which in the

¹ The American Exchange — Pacific National Bank.

brief life of the industrial system has consistently fought all attempts to subject the economic interests of the people to the control of government. These achievements have even convinced the partisans of government control, and for the first time in nearly half a century the industrial and economic affairs of the people of this country, at least, are once more unreservedly in the hands of its business leaders.

"Time has rung many changes since business men agreed not to agree and set out to serve progress each in his individual way, not consciously perhaps, but to serve, nevertheless. Probably few appreciate the deep significance of the change that has come about in the attitude of government toward business; fewer still realize the responsibilities that this change has fastened upon the business leadership of the country. *The question is, will this leadership be as wise in its day as the older leadership was in the past?* Historians of the present, writing in the future, will give the answer."

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The American Economic Review, published by the American Economic Association, Evanston, Illinois.

The Quarterly Journal of Economics, published by Harvard University, Cambridge, Massachusetts.

Political Science Quarterly, edited by the Faculty of Political Science of Columbia University, New York.

The Annals of the American Academy of Political and Social Science, bi-monthly, Philadelphia.

The Journal of Political Economy, monthly, published by the University of Chicago, Chicago.

Journal of the American Statistical Association, quarterly, Boston.

The American Journal of Sociology, bi-monthly, Chicago.

Review of Economic Statistics, quarterly, Cambridge, Massachusetts.

American Labor Legislation Review, quarterly, New York.

The Child Labor Bulletin, quarterly, New York.

The Economic Journal, quarterly, London.

The Economic Review, quarterly, Oxford.

The Economist, weekly, London.

The Statist, weekly, London.

Among other publications which contain valuable economic articles are the following :

Administration, monthly, Ronald Press, New York.

The Federal Reserve Bulletin, monthly, Federal Reserve Board, Washington, D. C.

The Magazine of Wall Street, semi-monthly, Ticker Publishing Co., New York.

System, monthly, A. W. Shaw, Chicago.

The Annalist, weekly, *New York Times*, New York.

Commerce and Finance, weekly, T. H. Price, New York.

The Commercial and Financial Chronicle, W. B. Dana, New York.

The following monthlies often contain articles on economic topics :

The Nation's Business, Chamber of Commerce of the United States, Washington, D. C.

North American Review, *Review of Reviews*, *The World's Work*, *Atlantic Monthly*, etc.

And the following weeklies :

The Nation, New Republic, Outlook, Survey, Literary Digest, Barron's.

Among government publications mention should be made of its two annuals :

Statistical Abstract of the United States.

Commerce Year Book.

These are both published by the Government Printing Office, Washington.

Interesting monthly *Bulletins* are published by various New York banks, among which the following are worthy of mention :

American Exchange-Pacific National Bank, Bank of America, Irving Bank-Columbia Trust Company, The National City Bank of New York. The Chase National Bank issues five or six valuable discussions a year.

Business men are coming more and more to recognize the importance of obtaining the largest possible information upon which to forecast the future of business; in consequence in recent years, in response to this demand, there have come into existence various *Economic Services* for the assistance of business men and investors. Among them mention may be made of the following : (See p. 232.)

Babson's Statistical Organization, Wellesley Hills, Massachusetts.

Brookmire Economic Service, New York.

Thomas Gibson Service, New York.

Harvard University Committee on Economic Research, Cambridge, Massachusetts.

John Moody Economic Service, New York.

Poor's Statistical Service, New York.

Standard Statistical Service, New York.

United Investors' Service, Boston.

ADDENDA

TABULAR VIEW

OF

THE MARGINAL PRODUCTIVITY THEORY OF DISTRIBUTION¹

The price of any of the factors of production is controlled by the demand for and the supply of that factor.

A. *Demand* for a factor of production.

1. Law of Diminishing Returns.
 - a. Statement.
 - b. Re-statement.
2. Law of Diminishing Productivity (variable proportions). Statement (Bye and Faubel).
3. Marginal product.
 - a. Definition.
 - b. Illustration.
4. Demand for productive agents is based on their marginal productivity.
 - a. Illustration.
 - b. Generally applicable to all agents of production.
5. Opportunity cost. Meaning.
6. Conclusion.

B. *Supply* of a factor of production.

1. The marginal product varies with its quantity. If an agent of production is very abundant, its marginal productivity and its value will be small; if it is scarce, its marginal productivity and its value will be large.
2. Land.

Its quantity is practically fixed—so demand is all important in determining its value in production.
3. Capital goods.

They can be produced by man. Their various forms require saving, waiting, and risk.
4. Labor.

Its supply is governed by

 - a. Size of the population.
 - b. Proportion of it gainfully occupied.
 - c. Number capable of doing various kinds of work.
 - d. Willingness of people to work.
 - e. Desirability or attractiveness of the work.
5. Business enterprisers.

Their supply depends on

 - a. Percentage of managing ability in population.
 - b. Their willingness to assume risks.
6. Conclusion.

Each person contributing his land, labor, or capital goods to production is rewarded in accordance with the productive importance of that land, labor, or capital goods.
7. Advantage.

A rough economy in use of the scarce factor.

¹ See pages 428-433 of this text.

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